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ANNOUNCEMENT
OF THE
MEDICAL COLLEGE
NEW YORK AND ITHACA
1914-1915

JANUARY, 1915
PUBLISHED BY CORNELL UNIVERSITY
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and its Research Laboratories**

C O R N E L L
U N I V E R S I T Y
M E D I C A L B U L L E T I N

ANNOUNCEMENT
OF THE
MEDICAL COLLEGE
NEW YORK AND ITHACA
1915

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CALENDAR.

1915

- May 29. Saturday—Third term ends.
June 1. Tuesday—Examinations begins.
June 10. Thursday—Commencement.
Sept. 17. Friday—Examinations begin for admission to the first year of all departments of Cornell University.
Sept. 20. Monday—Examinations begin for conditioned students and for those applying for advanced standing in the medical department.
Sept. 29. Wednesday—College opens.
Nov. 2. Tuesday—Election day. Legal holiday.
Nov. 24. Wednesday, 6 P.M.—Thanksgiving recess begins.
Nov. 29. Monday, 9 A.M.—Thanksgiving recess ends.
Dec. 18. Saturday—First term ends.
Dec. 20. Monday—Christmas recess begins.

1916.

- Jan. 3. Monday, 9 A.M.—Second term begins.
Feb. 22. Tuesday—Legal holiday.
March 11. Saturday, 6 P.M.—Second term ends.*
March 13. Monday, 9 A.M.—Third term begins.*
April 21. Friday, 9 A.M.—Easter recess begins.
April 24. Monday, 9 A.M.—Easter recess ends.
May 27. Saturday, 6 P.M.—Third term ends.
May 29. Tuesday—Examinations begin.
June 8. Thursday—Commencement.

*The session is subdivided into three terms of eleven, ten, and eleven weeks, respectively, and courses are scheduled in conformity with this subdivision, except that in the fourth year the second term is lengthened to twelve and the third term shortened to nine weeks.

All students must be registered at the secretary's office at the opening of the session. No student will be admitted after October 11th without special permission of the Faculty. Immediately after registration the fees must be paid at the treasurer's office.

Men may take the first year at either New York or Ithaca. Women must take the first year at Ithaca. All students take the last three years at New York.

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*Term of office (5 years) expires in 1915, the next group of six in 1916, etc. B., elected by Board. A., elected by Alumni. G., appointed by the Governor. Gr., elected by the New York State Grange for 1914-15.

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At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted by the Board of Trustees of Cornell University:

Resolved, That for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established, a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be *ex-officio* chairman), the Dean of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee, who shall be appointed, one for one year, one for two years, and one for three years, and their successors to be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

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W. J. HEIMANN, M.D.,
ANDREW J. GILMOUR, M.D., EDWARD H. MARSH, M.D.,
O. L. LEVIN, M.D., S. FELDMAN, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Department of Otology.

Chief of Clinic.

GEORGE B. MCAULIFFE, M.D.

Assistant Surgeon.

THOMAS A. MULCAHY, M.D.,

STEWART L. CRAIG, M.D.

Department of Laryngology.

Chief of Clinic.

FRANKLIN T. BURKE, M.D.

Surgeon.

WALTER C. MONTGOMERY, M.D.

Assistant Surgeons.

FRANCIS W. BALDWIN, M.D.,

ROLLAND D. TOMLINSON, M.D.,

JAMES P. ERSKINE, M.D.

G. B. STANWIX, M.D.,

ROBERT C. HOWARD, M.D.

Department of Orthopædics.

Chief of Clinic.

ARTHUR H. CILLEY, M.D.

Surgeon.

CARL R. KEPPLER, M.D.

Assistant Surgeon.

JOHN S. WARE, M.D.

Department of Radiology.

Chief of Clinic.

ARTHUR HOLDING, M.D.

Department of Ophthalmology.

Surgeons.

GEORGE W. VANDEGRIFT, M.D.,

JOHN M. WHEELER, M.D.,

B. W. SAMUELS, M.D.

Assistant Surgeons.

A. D. EISENBERG, M.D.,

M. LOMBARDO, M.D.

C. A. DRAKE, M.D.,

W. P. J. RUDDY, M.D.,

J. W. WHITE, M.D.

Department of Drugs and Supplies.

Pharmacist.

GUSTAVE T. RUCKERT, Ph.G.

Assistant Pharmacist.

THEODORE A. CROLLY, Ph.G.

GENERAL STATEMENT.

The Medical Department of Cornell University was made possible by the gift to the University of a commodious and fully equipped building designed for medical instruction, and by the bestowal of funds for the maintenance of a vigorous school of medicine.

The objects of this school are:

- (1) To develop physicians of the best type, and
- (2) To conduct researches into the nature and cure of disease.

The school offers educational and research facilities to all undergraduates and graduates in medicine who are properly qualified to benefit from these opportunities and who are in sympathy with these aims.

The Main College Building comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue. The building is devoted to the Departments of Clinical Pathology, Chemistry, Pathology, Bacteriology, Physiology, Medicine and their laboratory equipment.

The Loomis Laboratory (founded 1886 by the same munificent hand) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory, and special departments have been established in bacteriology, physiological chemistry, experimental medicine, and pharmacology.

The College Dispensary, located in the main College building, is fully equipped for purposes of instruction.

The attendance in the Dispensary averages about 400 patients daily and annually includes about 15,000 new patients. The organization is such as to bring the Dispensary into closest touch with the laboratory and research facilities of the College. In the Department of Medicine, especially, students in the fourth year are assigned to continual service in the Dispensary.

The Department of Radiology as well as the Laboratory of Clinical Pathology, is in direct connection with the Dispensary, and by coöperation and coördination of work their services are placed at the constant disposal of the various other departments of the Dispensary for the diagnosis and investigation of disease and for purposes of instruction.

The Library is supplied with current periodicals in German, French, English and Italian, which include nearly all the more important journals in the field of medical science, and the back files of these periodicals are fairly complete. Every effort is made to maintain a library commensurate with the needs of the College. A special reading room is provided for the convenience of students.

In addition to the College Library, students enjoy certain privileges at the Library of the New York Academy of Medicine, 17 West 43d Street, the second largest medical library in the United States, and at the various public libraries of the city.

CORNELL UNIVERSITY MEDICAL COLLEGE.

New York Hospital.—The Medical College, through the courtesy of the Governors of the New York Hospital, has long been accorded certain privileges for instruction in its wards, but on the first of January, 1913, a definite arrangement was established between Cornell University and the New York Hospital, through the donation to the hospital of a generous fund which was presented by Mr. George F. Baker, one of the Governors of the Hospital, upon the condition that thereafter half the entire medical, surgical and pathological services of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research.

By this most advantageous arrangement the University nominates the Visiting Staff and Laboratory Staff of its division and secures the admission of its students to the wards as clinical clerks, which enables the College to make a definite provision in its courses of instruction and research for work in the New York Hospital, and this is now closely correlated in the curriculum with the similar work which had hitherto been done in Bellevue Hospital. Furthermore, the Laboratory Staffs of the different departments of the Medical College are placed at the service of the Hospital for the purpose of extending its scientific work.

The hospital service thus assigned to the College comprises 100 beds. This service is exceedingly active. It includes several thousand acute and emergency cases brought in annually from a large ambulance and dispensary district.

The medical staff of this hospital assigned to the Cornell University Medical College has been organized for instruction in three branches of medical work as outlined on pages 41 and 48.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in the New York Hospital.

Bellevue Hospital.—This hospital, located on First Avenue, directly opposite the Main College building, has 1,200 beds, and receives 24,000 patients annually. It contains an amphitheatre capable of seating 300 students, and also a number of small operating theatres, where section demonstrations in surgery and gynecology are made before the class. Connected with the hospital is a hydropathic establishment, where students are shown the practical application of baths, douches, massage, etc.

The hospital is organized in four divisions, one of which has been placed by the Trustees of the hospital at the disposal of the Faculty of the Cornell University Medical College for medical instruction. The services thus intrusted to the College include, continuously, 90 medical beds, 90 surgical beds, 32 beds devoted to gynecology, 22 to genito-urinary diseases, and for one-half the year 54 obstetrical beds, together with equal privileges with the other three divisions, giving continuous opportunity for instruction and research, in the additional wards devoted to the treatment of alcoholic diseases, tuberculosis and the psychopathic diseases.

The visiting staff of the Second, or Cornell Division is drawn entirely

GENERAL STATEMENT

from the Faculty and instructors of the College and by coöperation with the Medical Board of the Hospital this division has been organized with a view to the best interests of the patients, as well as with a view to furnishing adequate facilities for instruction. The students spend a considerable portion of the third and fourth years in this hospital as clinical or surgical "clerks," and during the preceding years frequent clinical instruction is conducted in its wards, as fully described under "Details of the Plan of Instruction," page 29 *et seq.*

While Bellevue Hospital is provided with an elaborate Department of Pathology of its own, the scope of the hospital work of the Cornell Division is broadened by the intimate relation existing between the laboratories of the Medical College and the medical service of the hospital. In addition to the staff provided by the hospital, the College maintains a corps of research workers and special assistants who conduct their routine examinations in extension laboratories equipped by the College in rooms adjacent to the wards of the hospital, and who consummate their major investigations in the more completely equipped laboratories of the College building.

In the fulfillment of the trust imposed upon the Faculty of the College by the Trustees of Bellevue Hospital, the Medical College Staff of the Second Division, appointed by the Trustees on nomination by Cornell University, has been organized as described on pages 42 and 48.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in Bellevue Hospital.

The Neurological Institute.—By courtesy of the Neurological Institute the section work in Nervous Diseases is offered to third and fourth year students in the wards and Out-Patient Department of this hospital, the students being assigned for ward work in small sections during the third and fourth years. The Neurological Institute is a hospital of considerable size, devoted to the care of nervous diseases and possessing a complete equipment for neurological examination, diagnosis and treatment.

Manhattan State Hospital, Ward's Island.—This hospital is devoted to the care of the mentally incompetent of New York City, and has a capacity of 3,600 patients. Through the courtesy of the authorities the Professor of Psychopathology is enabled to offer in its wards clinical instruction, which is conducted during an entire morning, weekly, for eleven weeks in the fourth year.

In addition to the above, members of the Faculty of Cornell University Medical College hold appointments in various hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material. This is used from time to time as necessity or opportunity arises. The major part of the bedside and clinical instruction is, however, purposely conducted in Bellevue Hospital, which is directly opposite the College, and in New York Hospital, which is conveniently located on Fifteenth Street, and may be reached by surface cars in fifteen to twenty minutes.

REQUIREMENTS FOR ADMISSION.

The Faculty of the Cornell University Medical College are of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in Arts or Science. The great advances of recent years in all the natural sciences have led to correspondingly great advances in the practice of medicine and surgery. As a result the usual four-year course in medicine has become so seriously overcrowded that, if the teaching of medicine and surgery is to keep pace with the advance in knowledge, the strictly medical portion of the curriculum must be extended. It was deemed wise to accomplish this result by requiring that the fundamental branches of Chemistry, Physics and Biology be pursued before admission to the Medical College. Since most Colleges granting degrees in Arts and Sciences are amply prepared to provide instruction in these fundamental subjects, it is expected that the result may be accomplished by a *standard of admission which shall require the baccalaureate degree* or its equivalent. Without attempting to enter into a discussion of the relative advantages of the course in Science or Arts, the President and Trustees of Cornell University adopted the requirements advised by the Faculty of the Medical College for admission to the course leading to the degree of M.D., and since September, 1908, only the following classes of candidates are admitted to the Cornell University Medical College:

I. Graduates of approved colleges or scientific schools; or

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree* upon the satisfactory completion of the year's work; or

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the Medical College.

All candidates for admission to the Cornell University Medical College must have at least such knowledge of physics, inorganic chemistry and biology as may be obtained in college by a year's work in these subjects, as indicated below.

Physics.—The candidate shall have satisfactorily completed a year's work in Physics, including laboratory work, in an approved College.

Chemistry.—The candidate shall have satisfactorily completed a year's

*No student under this clause is permitted to enter the second year of the medical curriculum without the bachelor's degree obtained after at least three years of undergraduate college work. This clause is intended to provide for those students who by specially directed or by specially proficient work accomplish the essential requirements for a B.S. or B.A. degree during three years of College residence.

REQUIREMENTS FOR ADMISSION

work in introductory inorganic chemistry. This course should have included at least fifty hours of didactic work, and not less than eighty hours of laboratory work.

In addition the candidate shall have satisfactorily completed a course in either qualitative analysis, quantitative analysis, or organic, physiological, or physical chemistry, comprising at least twenty hours of class-room work, and ninety actual hours of laboratory work.

Biology.—The candidate shall have satisfactorily completed a year's course in biology, or zoology, including laboratory work, in an approved college.

The Trustees felt that it was unfair to refuse the exceptional student of unusual abilities who has obtained independently an education equivalent to that implied by a degree from a college or scientific school, and there will therefore be examiners appointed from the faculties in the different colleges of Cornell University to determine the qualifications of such as may apply for admission under Rule III of these requirements. The committee in charge of the administration of this rule consists of the President of the University and the Deans of the Faculties of Arts and Sciences and of Medicine. No instance of qualification for admission under Rule III has as yet been encountered.

APPLICATIONS FOR ADMISSION

All applications and communications are to be addressed to the Secretary of the Medical College from whom blank forms of application for admission may be obtained.

Prospective students will often find it to their advantage to file their application in the Spring. Applicants who cannot offer the required amount of Physics, Chemistry or Biology are thus enabled to pursue additional courses in the Summer School.

Inasmuch as all students of medicine in New York State are required by law to have previously had an adequate preliminary education, and as this preliminary education must be certified to as sufficient by the State Educational Department, it is advisable that applicants for admission send to the Secretary of the Medical College, at least a month before entering, their diplomas or properly attested certificates of graduation, bearing the seal of an approved college or scientific school, that the secretary may then obtain the requisite "medical student's certificate" from the State authorities.

ADMISSION TO ADVANCED STANDING.

Applicants for advanced standing must have met in full the requirements for admission (page 20), and must have already attended the legally required number of courses in an approved regular medical college. Applicants thus qualified may be admitted to the Cornell University Medical College under the following conditions:

1. A properly attested certificate of actual attendance at a registered

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Medical College for the full number of years of medical study for which time credit is asked must be presented and approved.

2. A certificate showing that the student has satisfactorily completed in an approved medical college all of the required work of the years for which credit is asked must be presented and approved.

3. Subject credit will be granted on presentation and approval by the heads of departments of properly attested certificates stating the courses already completed in an approved medical college with the number of hours, didactic and laboratory, devoted thereto, together with the name of the instructor.

4. In the absence of the approved certificate called for in the preceding paragraph (number 3) subject credit for advanced standing will be granted only by examination.

For a list of the subjects for examination see page 72.

Examinations for admission to advanced standing are conducted by heads of departments and may be taken with the class at the end of the session in June or prior to the opening of the session in September. In 1915 these examinations will begin at 9 A.M. on June 1st and September 20th.

ADMISSION TO SPECIAL COURSES.

Graduates in medicine, or students who desire to pursue a special course without graduation, are admitted to registration as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of doctor in medicine. The courses offered are outlined on pages 76 to 79. Further information regarding such courses, fees, etc., may be obtained by addressing the Secretary of the Cornell University Medical College, First Avenue, 27th and 28th Streets, New York.

REQUIREMENTS FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF NEW YORK.

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in the State of New York. Further information as to the nature of the requirements of the New York State law regulating the practice of medicine may be obtained by consulting the handbook issued for gratuitous distribution by the New York State Education Department at Albany, N. Y.

All requirements for admission to examinations for licensure should be

REQUIREMENTS FOR ADMISSION

filed with the State Education Department at least one week before examination.

Examinations for license to practice medicine in this State will be held as follows:

	1915
Winter	Jan. 26-29
Spring	May 25-28
Summer	June 29-July 2
Autumn	Oct. 5-8

Places.

New York, Albany, Syracuse, Buffalo.

CHARGES FOR INSTRUCTION.

First Year.

Registration	\$5.00
Tuition	150.00
Laboratory fees	35.00
	—————\$190.00

Second Year.

Tuition	\$150.00
Laboratory fees	35.00
	—————\$185.00

Third Year.

Tuition	\$150.00
Laboratory fees	35.00
	—————\$185.00

Fourth Year.

Tuition	\$150.00
Laboratory fees	25.00
Final Examination fee.....	25.00
	—————\$200.00

The registration fee is payable only once, on entrance.

The final examination fee is payable on registering for graduation. All other fees are payable at the beginning of the term, but in special cases they may be paid semi-annually in advance. No rebate will be made in any case.

No remission of laboratory fees will be made because of previous instruction elsewhere in the subjects.

Each student is required to pay to the clerk of the College the following amounts to cover breakage in the Laboratories and Dispensary departments:

1st year, Laboratory and Dispensary.....	\$10.00
2d year, Laboratory and Dispensary.....	10.00
3d year, Laboratory and Dispensary.....	10.00
4th year, Dispensary.....	5.00

CORNELL UNIVERSITY MEDICAL COLLEGE

A deposit of \$5 will be required of each student who desires to withdraw books from the library.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

For Fees of Special Students see pages 76 to 79.

For Fees of Graduate Students see page 83.

EXPENSES OF STUDENTS.

The following estimate of the annual expenses of a candidate for a degree in the Medical School is based on the statement of students:

	Low.	Average.	Liberal.
Tuition	\$190	\$190	\$190
College incidentals	20	26	30
Books	16	28	35
Room and board.....	227	275	350 up
	<hr/>	<hr/>	<hr/>
Total	\$453	\$519	\$605

To these expenses should be added the cost of clothes, laundry and personal incidentals, which must vary with each individual.

LOCATION AND MODE OF ACCESS.

The main building of Cornell University Medical College is located on First Avenue between 27th and 28th Streets.

The street railway cars of the Third Avenue System on Twenty-eighth and Twenty-ninth Streets and on First Avenue pass the College building. The cars of the N. Y. Railways Company transfer to the crosstown cars on Twenty-third and Thirty-fourth Streets, which, at First Avenue, pass within five blocks of the College buildings. A convenient station of the Subway line is located at Twenty-eighth Street and Fourth Avenue. The nearest stations of the Manhattan Elevated Railroad are at Twenty-eighth Street on the Third and Sixth Avenue lines and at Twenty-third Street on the Second Avenue line.

GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

The function of a Medical Department in a University is primarily to produce practitioners of medicine of the highest possible efficiency. The school must include among its students not only those whose life is to be spent in the treatment of disease, but those who intend to become teachers of medicine or of the branches of natural science upon which medicine depends, as well as those who devote their energies to advancing these sciences by research and to work connected with the public service. The Medical Department of the University has therefore developed into a school whose students are to be prepared to become practitioners of medicine and surgery, teachers of these subjects and their subsidiary branches, and investigators of biological problems which pertain to human disease and "preventive medicine." To reach this ideal, and to relieve the Medical Department from instruction in subjects which belong to natural science in general and not strictly to the medical curriculum, it is necessary that the students should have received the best possible preliminary education, which must include, in addition to the mental training implied by the baccalaureate degree, the amount of physics, inorganic chemistry and general biology outlined in the requirements for admission. As these courses are now given in practically all colleges, it suffices to point out their necessity to every prospective student of medicine, and to require that they each be pursued for at least one year as ordinarily given in the college, and then the education preliminary to entering upon the medical course can be considered the best obtainable, though not necessarily the best possible.

In arranging the course of study the subjects pertaining to pure, rather than applied, science are grouped in the first year of the medical course, those of the applied science in the second year, and the so-called practical subjects in the second, third and fourth years.

The fourth year of the medical curriculum is devoted largely to clinical instruction in the various aspects of medicine and surgery, with bedside instruction and ample opportunity for the careful study of medical cases by continuous service in the hospital wards. Some opportunity for elective courses is allowed, but all students must take at least the minimum amount of the subjects which form the basis of the general practitioner's usefulness, and all are thus necessarily prepared for successfully undergoing the usual competition for appointments as hospital internes, positions in the public service, and examinations for licensures by the States.

Any student of exceptional fitness, however, after having completed the first three years' work and who then desires to devote the major part of his time to one or more of the laboratory departments may do so during the fourth year. Such an arrangement can be made only with the approval of the Dean and the heads of the departments concerned. The departments

CORNELL UNIVERSITY MEDICAL COLLEGE

in which the student is engaged shall then determine whether his work has given such satisfaction as would warrant the degree at the end of the year.

Custom and experience are in favor of a long summer vacation, and the utilization of the cool months alone for teaching. The Faculty have therefore decided on a period of thirty-two actual working weeks exclusive of the time occupied by holidays and examinations. This working period is divided into three terms, the first of eleven, the second of ten, and the third of eleven weeks. By this arrangement it is possible to obtain a certain degree of "concentration" in the teaching of those subjects in which that plan is advantageous, and it is thus also possible to maintain a proper sequence in the curriculum.

In the first year anatomy, histology, embryology and advanced chemistry occupy the entire first and second terms. Neurological anatomy and histology, physiological chemistry and physiology complete the year.

In the second year the first term is occupied with applied and surgical anatomy, physiology, pharmacy, and the pharmacology of locally acting drugs. The study of medicine, surgery and obstetrics are begun by recitations and conferences.

The physiology of the nervous system is completed and the study of practical medicine is begun with a course in physical diagnosis upon ambulatory cases. The methods of laboratory physiology are related to practical medicine by a course in clinical physiology conducted in part in the laboratories of Physiology and in part in the wards of Bellevue Hospital. The pharmacodynamics of the more important drugs are considered.

The afternoons of the third term are largely occupied by the course in bacteriology. In the mornings pathology is begun. Surgery is continued and surgical diagnosis on ambulatory cases is begun.

In the third year the didactic work in medicine and surgery is introduced by a course of lectures and carried forward by means of recitations or conferences throughout the year. In the first term of the third year general pathological histology is completed, and in the second term a portion of three mornings a week is devoted to special surgical pathology and the pathology of the nervous system. Pathological anatomy is pursued throughout the year, carrying forward and completing the work already begun in the latter part of the second year. The student is introduced to the method of performing autopsies for pathological diagnosis, the work being conducted in the laboratories of the College and in the City Morgue in connection with Bellevue Hospital. In the mornings of the second term the laboratory phases of medicine are demonstrated by an ample course in clinical pathology.

The pharmacological course of the preceding year is continued in the third year by a course of didactic and clinical lectures, accompanied by demonstrations in the wards of Bellevue Hospital, in which the principles of pharmacodynamics are applied to the human patient to demonstrate the effects of drugs and other therapeutic measures in accomplishing the relief

GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

and cure of disease. During the second and third terms recitations and conferences supplement the work of the lecture room and clinic.

The clinical work is pursued throughout the year, the class being divided into small sections for diagnostic and clinical instruction in the wards of Bellevue and other hospitals and in the College dispensary. The course in obstetrics is completed during this year by means of clinical and didactic lectures, the observation of parturient patients in the wards of Bellevue and Manhattan Maternity Hospitals, and by section conferences in the hospital wards and with manikin. Each student must, during the summer vacation, between the third and fourth years, pursue a course in practical obstetrics in which he comes in contact with, and personally delivers, at least six cases. The service in this course is ample, and as a rule the student handles several times the required number of cases.

The Faculty earnestly recommends that this maternity work be accomplished in the summer, preferably of the third year. If taken during the regular winter session much loss in other work may result.

Instruction in the more important specialties is begun in the third year by means of weekly clinical lectures by the professors of neurology and pediatrics, and both clinical lectures and section conferences in genito-urinary diseases during the second and third terms. In the second term the study of gynecology is begun by means of recitations.

The third term of this year is devoted largely to practical ward instruction in medicine and surgery, students being assigned as clinical clerks in the wards of New York Hospital, where they are on duty the major part of every day for eleven weeks.

In the fourth year the work of the previous years is carried forward to completion. Didactic instruction in medicine and surgery is completed in the first term, and is amplified by bedside teaching in the wards of the New York and Bellevue Hospitals.

In the first term the practical ward work in medicine is continued, one-half the class being again assigned as clinical clerks in the medical wards of Bellevue Hospital, where each student serves for an additional period of five and one-half weeks.

The remaining portion of the term is devoted to instruction in the specialties. The courses consist of explanatory lectures and conferences, accompanied by systematic instruction in the examination of patients, diagnosis of disease, and the application of methods of observation and treatment peculiar to these branches of medicine. Each student receives 14 to 20 hours of instruction in each of the medical and surgical specialties, the time varying with the subject. The student is thus made sufficiently proficient in the use of instruments and in the ability to make diagnoses in the specialized branches of medicine to become a competent general practitioner. This work is largely completed in the first term of eleven weeks.

The second term is in this year lengthened to twelve weeks, thus providing two periods of six weeks each in which students are assigned as clinical clerks to the surgical wards of New York and Bellevue Hospitals for prac-

CORNELL UNIVERSITY MEDICAL COLLEGE.

tical ward instruction in general surgery and to the special wards of New York and Bellevue Hospitals in Neurology, Pediatrics, Gynecology, Orthopedic Surgery, and Urology.

In order to provide for the extensive courses as clinical clerks in Medicine, Surgery and their allied specialties the services of the Cornell Division of New York Hospital and of the Second Division of Bellevue Hospital, which are under the exclusive control of Cornell, have been organized under the direction of the Professors of Medicine and Surgery, giving continuous periods of service throughout the College year to those of the Faculty who form their Visiting Staffs. The Staff is augmented by an ample corps of assistant visiting physicians and research workers selected from among the assistant professors, instructors and laboratory workers of the Medical School.

The student is thus introduced directly to the work of the hospital ward, and by continuous service is enabled to study a considerable number of cases from their admission to the hospital to their completion. The student is required to examine patients and record histories which become part of the hospital records, to make physical examinations and diagnoses of the patients consigned to their care, to perform clinical examinations in the laboratories of the hospital and college under the direction of a trained instructor from the Department of Clinical Pathology, and to become thoroughly proficient in the history of the diseases met in the wards of a large hospital. This work is carried on under the immediate direction of the Professors of Medicine, Surgery and Therapeutics, and under the constant supervision of a corps of instruction, which includes the entire Cornell staff of New York and Bellevue Hospitals and instructors and research workers of the medical school, from its laboratories of Pathology, Bacteriology, Clinical Pathology, Experimental Pathology, Experimental Therapeutics, Chemistry and Physiology.

In the third term of nine weeks the courses in dermatology, ophthalmology and orthopedics are completed, and courses are offered in psychopathology, chemical pathology and special topics in surgery. The clerkships in medicine previously conducted in the wards of the hospital are now transferred to the College Dispensary, where in the Department of Medicine students learn to apply to ambulatory cases the precise method of examination, diagnosis and treatment acquired during the hospital service.

The extensive opportunity for continuous ward work afforded by the curriculum of the fourth year in no wise replaces the valuable work afforded by hospital internship, but is in a way preparatory thereto. Every graduate of this medical school is expected to pursue the usual interne service in some hospital, our graduates having little or no difficulty in obtaining the best positions under competitive examination in addition to those appointments directly and indirectly controlled by this College. Without prolonged hospital training no physician should attempt to practice or to teach; and no specialist can be worthy of the name who has not had the broad foundation insured by such a service.

DETAILS OF THE PLAN OF INSTRUCTION.

THE DEPARTMENT OF ANATOMY.

CHARLES R. STOCKARD, M.S., Ph.D., *Professor of Anatomy.*

IRVING S. HAYNES, M.D., *Professor of Applied Anatomy.*

ISRAEL STRAUSS, M.D., *Assistant Professor of Neuro-Anatomy.*

WESLEY M. BALDWIN, A.M., M.D., *Assistant Professor of Anatomy.*

Mon. M. I. BURROWS, A.B., M.D., *Instructor in Anatomy.*

J. F. GUDERNATSCH, Ph.D., *Instructor in Histology and Embryology.*

Chas. I. E. WALLEN, M.S., *Assistant in Anatomy.*

GEORGE PAPANICOLAU, Ph.D., M.D., *Assistant in Anatomy.*

H. MURAYAMA, *Preparateur in Anatomy.*

J. H. GLOBUS, *Assistant in Anatomy.*

E. L. BREZEE, A.B., *Assistant in Anatomy.*

I. Morphology.

Structure of Man.—This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The organs of man are analyzed by comparison with the simpler ones of lower mammals and other vertebrates. The relationship of the parts of the organs and systems are also explained by numerous facts gathered from experimental morphological studies of lower vertebrates.

The chief aim is to instill into the student the idea that animal structures are constantly changing and varying, yet are so definite as to lend themselves to logical analysis.

The structure of the integument, muscles, skeleton, alimentary tract, respiratory organs, reproductive and excretory systems, and organs of special sense are demonstrated in the several vertebrate groups and compared with the systems in man. The student should have a previous knowledge of vertebrate comparative anatomy.

Special direction is also given to those students wishing to investigate problems in experimental and comparative anatomy.

Laboratory, 40 hours (elective), and demonstration conferences, 22 hours (required).

Text-books.—Wiedersheim's *Comparative Anatomy* and *Bau des Menschen*, Wilder's *History of Man*, together with special works and monographs on the subject.

Professor Stockard and Dr. Gudernatsch.

II. Embryology and Histology.

In this course the intra-uterine development of the human body, the histogenetic differentiation of its organs and the adult microscopic structures of the latter are studied.

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The work in *embryology* presupposes a general course in the subject and embraces a brief review of karyokinesis in its various phases; fertilization with consideration of heredity; cleavage as represented in the several types of vertebrate eggs; the processes of gastrulation and formation of germ layers, and a more thorough study of the development of the organs and systems in the bird, pig and human embryo.

Serial sections, transverse and sagittal, of embryos at various developmental stages are provided, and models are employed for illustration. The lectures and conferences are devoted to a discussion of the theories of development, and to a comparison of the phases in different groups of vertebrates with the embryology of man as the objective point. Special attention is devoted to those stages of development at which abnormalities, monsters and tumor-like inclusions are most likely to occur. The causes of such anomalies are considered in the light of experimental embryology. The student is directed in collateral reading on these topics.

In that part of the course devoted especially to *general histology* the various types of tissues are studied systematically, both in the fresh condition and by means of stained sections.

The third part of the course comprises a detailed study of *systematic histology*. The microscopic structures of the various organ-systems and organs are discussed extensively, whereby their organogenesis and histogenesis are continually called upon to elucidate the adult conditions. The work is conducted so that the histology of every organ appears as the final stage of its embryology. Fresh, teased material, as well as stained preparations, are used extensively. The structures of the entire body, with the exception of the central nervous system (see Neuro-histology) are covered.

A part of the course is devoted to the training of the students in *histological technique*, viz., the preparation of tissues for microscopic examination. The students will be asked to stain, by the ordinary methods, numerous fresh preparations as well as frozen, paraffin and celloidin sections. They also are given fixed tissues which they are supposed to prepare for paraffin embedding and cutting. In this way they are enabled to make a collection of slides of their own exhibiting the various typical structures.

A special feature of the latter part of the course is to train the students in the diagnosis of different organs. Unstained sections are provided and, after staining, the student is supposed to diagnose the tissues and state the reasons for this diagnosis. In this way the student has a chance to see the various structures a number of times, each time taken from another body, so that he not only has examined the diagrammatic teaching section of every organ, but very soon learns to recognize the individual variations and slight abnormalities of tissues of different individuals.

Toward the end of the course fresh, unstained tissues have to be diagnosed so that the student is called upon to analyse the structure carefully and to base his diagnosis not on staining qualities, but on the characters of the individual constituents of a tissue.

Laboratory course and lectures—250 hours, October to March. Required of all first year students.

DETAILS OF THE PLAN OF INSTRUCTION.

Text-books.—McMurrich, *The Development of the Human Body*; Lewis, *Text-book of Histology*; Quain's *Anatomy*, Vols. I and II; Minot, *Laboratory Text-book of Embryology*; Keibel and Mall, *Human Embryology*; Sobotta, *Atlas of Microscopic Anatomy*; Broman, *Normal and Abnormal Embryology*; Kollmann, *Atlas of Embryology*.

Drs. Gudernatsch and Burrows.

III. Neuro-Histology.

The histology of the central nervous system, together with the fibre tracts and the nuclei, are studied. In connection with this course lectures and demonstrations upon the physiology of the central nervous system are given in conjunction with the department of physiology.

Laboratory, 66 hours. Required of all first-year students.

Assistant Professor Strauss and Assistant.

IV. Gross Anatomy of the Human Body.

This is taught by means of laboratory exercises held in the dissecting room at stated hours.

The following are the courses required:

COURSE I. THE UPPER EXTREMITY.

COURSE II. THE HEAD AND NECK.

COURSE III. THE LOWER EXTREMITY.

COURSE IV. THE THORAX.

COURSE V. THE ABDOMEN AND PELVIS.

The required work in each of the above courses includes:

(a) Dissection of the part.

(b) Demonstrations, study, and recitations upon dissected and prepared specimens, and from standard text-books.

(c) An oral examination at the completion of each course.

Total laboratory hours, 288 (minimum). First and second terms of the first year.

COURSE VI. A DEMONSTRATION COURSE. Optional for the first-year students. Demonstrations upon the cadaver, models and dissected preparations, amplifying the courses in dissection during the first and second terms of the first year.

COURSE VII. STUDY ROOM COURSE IN LIVE ANATOMY.

Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. In it, through the study of living models and of one's own body, there is a practical and a most essential correlation of the facts ascer-

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tained in the dissecting room with the features of the living body as they are presented to the eye and to the touch. Optional to first-year students.

COURSE VIII. DISSECTION REVIEW.

The work covers a repetition of Courses I-V, giving an opportunity for advanced dissection. Optional to students of the second, third or fourth year. Afternoons.

COURSE IX. TOPOGRAPHICAL ANATOMY.—A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 99 hours. Required during the first term of second year.

Text-books.—Cunningham's *Manual of Practical Anatomy*, two vols.; Cunningham's *Text-book of Anatomy*; Spalteholz's *Atlas of Human Anatomy*.

Professor Stockard, Assistant Professor Baldwin and assistants.

COURSE X. NEURO-ANATOMY.—A course on the gross anatomy of the brain, conducted in the laboratory by means of dissections of the human brain, a study of prepared specimens, sections and models, with demonstrations and recitations.

Laboratory, 22 hours. Required of all first-year students.

Assistant Professor Strauss and assistant.

V. Applied Anatomy.

This course is given during the first term of the second year. It is conducted as a laboratory exercise. The students will study dissected and prepared specimens, showing the anatomy of the various regions and upon these, and the whole subject, will demonstrate the important facts of regional and topographical anatomy as applied to the practice of medicine and surgery.

Laboratory, 66 hours.

Text-book.—Woolsey's *Applied Surgical Anatomy*.

Professor Haynes.

VI. Elective Courses Preparatory to the Specialties.

Optional for students of the third and fourth years. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems:

- (a) The eye.
 - (b) The ear.
 - (c) The face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid and parathyroid glands.
 - (d) The genito-urinary system, male and female.
 - (e) The brain and spinal cord.
 - (f) The thorax and abdomen.
 - (g) The extremities, especially the joints and their mechanics.
- Laboratory, 40 hours. Professors Stockard, Haynes and instructors.

DETAILS OF THE PLAN OF INSTRUCTION.

VII. Elective Courses for Advanced Students.

COURSE I. GENERAL HISTOLOGY.—This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The tissues will be analysed from a phylogenetic and ontogenetic standpoint, and the gradual histogenetic changes from the most elementary to the best differentiated types will be discussed. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.

Twenty lectures, March to June.

Registration not later than January. Dr. Gudernatsch.

COURSE II. PHASES OF HISTOGENESIS.—A series of lectures intended to cover the history of the subject with special considerations of the rôle of movement, proliferation and environment in differentiation.

Ten lectures from March to June. Dr. Burrows.

COURSE III. THE ANATOMY OF THE INFANT.—A course of lectures amplified by demonstrations and the study of preparations. In this course the anatomy of the new-born infant is considered from the standpoints, morphologic, topographic, and physiologic, and in addition the genetic changes in the osseous, nervous (including special sense) vascular, digestive, and genito-urinary systems occurring after the sixth month of intra-uterine life are studied in detail.

Twenty lectures from January to March. Assistant Professor Baldwin.

COURSE IV. DEVELOPMENTAL ARRESTS AND STRUCTURAL DEFICIENCIES.—A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures from January to March. Professor Stockard.

COURSE V. EXPERIMENTAL EMBRYOLOGY.—These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from the several points of view.

Twenty lectures with conferences considering the recent literature of the subject. March to June. Professor Stockard.

VIII. Anatomical Research.

To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will gladly assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

PHYSIOLOGY.

GRAHAM LUSK, Ph.D., *Professor of Physiology.*

JOHN R. MURLIN, A.M., Ph.D., *Assistant Professor of Physiology.*

CARL J. WIGGERS, M.D., *Assistant Professor of Physiology.*

EUGENE F. DUBOIS, M.D., *Lecturer in Clinical Physiology.*

J. A. RICHE, *Assistant in Physiology.*

Instruction in physiology begins in the third term of the first year. The work of this term consists of four lectures a week, three laboratory sessions of three hours each, two conference quizzes and a written review. The subjects covered in this first half of the work include the physiology of muscle and nerve, the central nervous system, the special senses and reproduction.

The remainder of the course in physiology is given during the first term of the second year. There is a daily lecture. Following this, during three morning periods of three hours each, the student is in the laboratory and executes for himself the more important experiments concerned with animal and human physiology. The phenomena of secretion, respiration, circulation and metabolism are taken up experimentally. The students work in small groups under the personal guidance and criticism of the instructors and are frequently quizzed on the significance and interpretation of the experimental results.

The written review and conference quizzes continue to the end of the course. In addition, in this portion of the work there is held once in two weeks a seminar at which the students are expected to present in abstract form reviews of important physiological papers of classic or current interest. The student is encouraged to use the library as he does the laboratory, since both are essential to correct thinking. A knowledge of French and especially of German is desirable in this connection.

Research workers who will give half or the whole of their day will be welcomed in the laboratory and granted every facility.

Text-books.—Starling's or Howell's *Physiology*; Lusk, *Science of Nutrition*. Collateral Reading, scientific journals.

CLINICAL PHYSIOLOGY.

This course, which immediately follows the completion of the course in physiology, is partly experimental, involving imitation of diseased conditions in the lower animals, partly clinical, involving demonstrations of patients in wards who show in common diseases simple variations from the normal. It includes consideration of the factors of safety, the heart and circulation, blood and lymph, respiration, digestion, diabetes, diseases of the ductless glands, fever, secretion of urine, and concludes with a discussion of old age and infancy.

The course is intended to emphasize the application of physiology to medicine and to serve as a transition stage between the teachings of the laboratory and the practical applications in the clinic.

Text-books.—Krehl, *Principles of Clinical Pathology*, translated by Hewlett.

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BELLEVUE HOSPITAL AFFILIATION.

The trustees of the *Russell Sage Institute of Pathology* since July, 1912, with the approval of Mrs. Sage and of the trustees of Bellevue Hospital, have permitted the use of the income of the Institute for a period not exceeding five years for the construction and maintenance of a respiration calorimeter of the Atwater-Benedict type in one of the "convalescent" rooms of the second division of Bellevue Hospital. Dr. Graham Lusk, Professor of Physiology, is the scientific director, Dr. Eugene F. DuBois the medical director, Mr. F. C. Gephart chemist, Messrs. J. A. Riche and G. F. Soderstrom experts in calorimetry construction, and Dr. A. L. Meyer assistant. There are also three trained nurses. The welfare of the patients is under the direct supervision of the regular visiting staff of the hospital, Drs. W. Gilman Thompson, Warren Coleman and F. S. Meara, who act as consultants to the medical director. The present object of the Institute is to determine the nutritive requirement in various diseases, as well as the most desirable form in which to administer food. This calorimeter has been shown by tests to be capable of measuring the heat production of a man within one-quarter of one per cent. It is the first apparatus of its kind to be established in a hospital. Its records are open for the instruction of the general staff, the internes and students interested in scientific medicine.

SUMMARY.

	<i>First Year</i>	<i>Second Year</i>
Lectures	44 hours	66 hours
Recitations	33 "	33 "
Seminar .....	.....	11 "
Laboratory	99 "	99 "
Clinical Physiology .....	.....	40 "

CHEMISTRY.

STANLEY R. BENEDICT, Ph.D., *Professor of Chemistry.*

JOSEPH C. BÖCK, Ch.E., *Instructor in Chemistry.*

EMIL OSTERBERG, *Instructor in Chemistry.*

The instruction in chemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and in physics. The object aimed at is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

Lectures.—There will be two lectures weekly during the first and second terms upon organic chemistry. The subject will be discussed to an

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extent sufficient to impart a knowledge of the principles of combination and reactions of the carbon compounds, and the properties and relationships of those which are of physiological, toxicological or therapeutical interest.

In the third term three lectures weekly will be devoted to Physiological Chemistry.

Recitations and Conferences.—There will be one recitation weekly during the second term and two weekly during the third. These recitations are largely in the nature of a conference.

Laboratory Work.—During the second term there will be two sessions weekly, each of two and one-half hours, in organic chemistry. This work will be directed mainly to the preparation and examination of typical organic compounds, and will furnish practice on those points in which laboratory manipulations are desirable.

During the third term there will be three three-hour laboratory sessions in physiological and clinical chemistry. This course will include the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the fæces, urine, blood and milk; and of the examination of pathological fluids, concretions, stomach contents, etc. The study of metabolism will receive particular attention. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus and chemicals required.

Chemical Pathology.—The lectures in this subject will deal primarily with the abnormal phases of metabolism taking place in certain diseases. One lecture weekly during the third term to fourth-year students.

Research.—The laboratory will be open during "optional hours" to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

SUMMARY.

	<i>First Year</i>
Recitations	32
Laboratory	149
Lectures	84

Text-books.—Remsen, *Organic Chemistry*, fifth edition; Moore, *Laboratory Manual*; Hawk, *Practical Physiological Chemistry*, fourth edition.

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PHARMACOLOGY AND MATERIA MEDICA.

ROBERT ANTHONY HATCHER, Ph.G., M.D., *Professor of Pharmacology and Materia Medica.*

CARY EGGLESTON, M.D., *Instructor in Pharmacology and Materia Medica.*

Work in this department is offered during the second year.

Materia Medica and Pharmacy.

I. Elementary Pharmacy, Toxicology and Principles of Prescription Writing.—The work in this course occupies four hours a week during the first trimester. Twenty hours will be devoted to the consideration of crude drugs, and making pharmacopœial preparations of the different pharmaceutical classes (such as extracts, pills, etc.,) by the students. Each laboratory exercise will be preceded by an informal discussion of the work to be done and its relation to therapeutics.

Eight hours will be devoted to elementary toxicological analysis with the object of giving the student an insight into the general principles of the subject.

The remainder of the course will be devoted to prescription writing and incompatibilities.

Pharmacology.

III. Lectures.—During the second and third trimesters forty-five hours will be devoted to lectures, conferences and written reviews on Systematic Pharmacology. The lectures will be illustrated in part by demonstrations and by tracings taken from research experiments. Professor Hatcher.

IV. Laboratory.—Concurrently with the lectures on Systematic Pharmacology, ninety hours will be devoted to the laboratory study of the subject. The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professor Hatcher and Dr. Eggleston.

V. Research. Elective.—Students will be encouraged to conduct original research under the supervision of the several members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others.

SUMMARY.

	<i>Second Year.</i>
Lectures	35 hours.
Conferences and Recitations.....	20 hours.
Laboratory	134 hours.

Text-book.—Sollmann, *A Text-book of Pharmacology.*

~~APPLIED PHARMACOLOGY.~~

WARREN COLEMAN, M.D., *Professor of Clinical Medicine and Applied Pharmacology.*

EUGENE F. DuBOIS, M.D., *Instructor in Applied Pharmacology.*

Work in this department will be confined to the third year, and will consist of didactic lectures and clinical demonstrations of the actions of drugs and methods of treatment of disease without drugs. The treatment of disease is considered from the standpoint of the remedy, and the

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course is intended to connect the pharmacology of drugs, considered in the second year, with the therapeutics of disease, which is more completely elaborated in the fourth year of the course.

Lectures.—One didactic lecture will be given each week throughout the year upon the actions of the more important drugs in disease and diseased conditions. Special attention will be devoted to practical considerations, such as the effects of different doses, time and methods of administration, side-actions, and the symptomatology and treatment of the toxic effects of drugs. Professor Coleman.

Clinical Demonstrations will be given in the wards of Bellevue Hospital, illustrating the therapeutic actions of such drugs as the patients may require. Blood-pressure observations and pulse-tracings will be made in appropriate cases. Demonstrations will also be given of the methods of employing counter-irritants, blisters, cups and the actual cautery; hydrotherapy, lavage of the stomach, cleansing and nutrient enemata, and colon irrigations; methods of resuscitation after submersion; massage and resistance movements. As opportunity offers, the operations of venesection, paracentesis, lumbar puncture, hypodermoclysis, and saline infusions will be demonstrated. Professor Coleman and Dr. DuBois.

SUMMARY.

	<i>Third Year</i>
Lectures	32 hours.
Clinical demonstrations	52 hours.

Text-book.—Sollmann, *A Text-book of Pharmacology*.

Collateral Reading.—Cushny, *Pharmacology and Therapeutics*; Schmiedeburg, *Pharmakologie*; Heinz, *Handbuch der experiment. Path. und Pharmakologie*; Kobert, *Lehrbuch der Intoxicationen*; Hatcher and Sollmann, *A Text-book of Materia Medica*; Coleman, *A Syllabus of Materia Medica*; Arny, *Principles of Pharmacy*.

MEDICINE.

✓ W. GILMAN THOMPSON, M.D., *Professor of Medicine*.

✓ THOMAS WOOD HASTINGS, M.D., *Professor of Clinical Pathology*.

— ALEXANDER LAMBERT, M.D., *Professor of Clinical Medicine*.

✓ CHARLES E. NAMMACK, M.D., *Professor of Clinical Medicine*.

✓ LEWIS A. CONNER, M.D., *Professor of Clinical Medicine*.

7 ✓ NELLIS BARNES FOSTER, M.D., *Assistant Professor of Medicine*.

✓ WILLIAM C. THRO, M.D., *Assistant Professor of Clinical Pathology*.

✓ WALTER L. NILES, M.D., *Assistant Professor of Clinical Medicine*.

✓ MONTGOMERY H. SICARD, M.D., *Instructor in Physical Diagnosis*.

✓ FREDERICK L. KEAYS, M.D., *Instructor in Physical Diagnosis*.

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- ✓ROLFE FLOYD, M.D., *Instructor in Clinical Medicine.*
- ✓JOHN H. RICHARDS, M.D., *Instructor in Clinical Pathology and Medicine.*
- ✓HANS J. SCHWARTZ, M.D., *Instructor in Clinical Pathology.*
- ✓WILLIAM H. SHELDON, M.D., *Instructor in Medicine.*
- ✓RALPH G. STILLMAN, M.D., *Instructor in Clinical Medicine.*
- ✓HENRY WIRT JACKSON, M.D., *Instructor in Clinical Pathology.*
- ✓ARTHUR L. HOLLAND, M.D., *Instructor in Clinical Medicine.*
- ✓JOHN S. KENNY, M.D., *Assistant in Medicine.*
- ✓HELEN B. DAVIS, A.B., *Chemical Assistant in Medicine.*

1200
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The Course of Medicine comprises a graded plan of study extending throughout three years. General didactic lectures upon the practice of medicine are almost wholly supplanted by bedside and dispensary instruction and systematic recitations from text-books. The course includes the following subdivisions:

Second Year:

- (1) Recitations from a text-book upon medicine covering elementary topics with written reviews.
- (2) Physical diagnosis of the heart and lungs, with systematic physical examination of the entire body in health and disease, and methods of recording observations.

Third Year:

1. Recitations from an advanced text-book, with written reviews.
2. Physical diagnosis continued.
3. History recording.
4. Clinical pathology.
5. Twenty-two lectures on symptomatology.
6. Hospital medical clinics.
7. Clinical clerkships in Bellevue or New York Hospital.

Fourth Year:

1. Advanced bedside study in symptomatology, diagnosis, and treatment, conducted while acting as "Clinical Clerks" in the wards of Bellevue Hospital.
2. Work in the Out-patient Clinic as "Clinical Clerks."
3. Demonstrations of patients by the student before the class in the Out-patient Clinic.
4. Physical diagnosis.
5. Hospital medical diagnosis clinics.
6. Elective advanced work in clinical diagnosis, clinical pathology, history recording, etc.

The details of the method of instruction in medicine for each year of the curriculum are as follows:

SECOND YEAR.

Recitations.—Second-year students begin the study of medicine with systematic recitations from a text-book on the Practice of Medicine, in which the subjects of nomenclature, etiology, morbid anatomy and typical symptoms are dwelt on.

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Physical Diagnosis.—This course covers 96 hours, and is conducted in the Out-patient Clinic, in which the service is large and varied. Students are not only thoroughly instructed in the physical diagnosis of the heart and lungs, but are taught the systematic observation of the entire body in health and disease. They are familiarized with the use of instruments of precision and recording apparatus, and are assisted by the demonstration of models and diagrams.

THIRD YEAR.

Recitations.—Third-year students recite twice each week from a textbook on the Practice of Medicine, special emphasis being given to symptomatology, complications, diagnosis, and treatment.

Written reviews are held at intervals to familiarize the student with examinations. All recitations are obligatory, and the recitation marks received form an important component of the final examination marks of the year.

Lecture.—A course of twenty-two lectures upon general symptomatology is given by the Professor of Medicine, which is designed as introductory to systematic bedside teaching.

General Medical Clinics.—Students of the third year are required to attend a clinic in medical diagnosis conducted by Professor Thompson, as described for the fourth year. This clinic is held weekly in the amphitheatre of Bellevue Hospital.

Medical Diagnosis is taught in sections in the Out-patient Clinic during the first term. Students are instructed in methods of history taking, and each student has opportunity personally to examine patients, record their symptoms and follow the effects of treatment suggested for them. The study of systematic physical diagnosis of the thoracic and other organs, begun in the second year, is continued and applied to conditions of disease.

Clinical Pathology.—See below.

Hospital Work.—Full details of the bedside work of the third year are given in connection with the description of the clinical clerkships of the fourth year under the following section.

FOURTH YEAR.

Practical Work in Hospital and Dispensary.

The hospital instruction is concentrated in the wards of the Bellevue and New York Hospitals and comprises a comprehensive and thoroughly practical course, beginning in the last term of the third year, continuing in the first term of the fourth year as bedside study, and ending in the third term of the fourth year with clinical clerkships in the Dispensary of the College. The work is thus systematized, beginning with elementary instruction in methods of examination of ward cases, history recording, etc., and leading to the study of differential diagnosis in the more complicated and obscure cases. Throughout this practical course the work of the in-

DETAILS OF THE PLAN OF INSTRUCTION.

dividual student is always under the immediate direction of one of the instructors in medicine, and he is encouraged to feel that thoroughness in its performance may be a distinct advantage to the hospital where the history which he takes and his clinical laboratory findings become part of the permanent records of the institution.

In the final term of the third year the students go for $5\frac{1}{2}$ weeks to the wards of the New York Hospital, and during the first term of the fourth year they are assigned to precisely similar service in the wards of Bellevue Hospital. This service is outlined as follows:

Duties of the Clinical Clerks.—Each student is assigned as a Clinical Clerk in the hospital wards for a continuous all-day service, during which his entire time is devoted to this work. He goes to the ward daily at 9 A. M., and, with the exception of the noon recess, remains there throughout the day. Cases are assigned to him for study, each student thus caring for about six cases at a time, so that during his period of clerkship he may become familiar with at least 80 cases. In the morning hours he records the history of new cases and notes such changes as may have arisen in those previously examined, including the therapeutic effect of treatment. He obtains specimens of excreta, etc., from his patients and examines them in the clinical laboratory under the direction of an instructor from the Department of Clinical Pathology. During the afternoon hours he is instructed in physical diagnosis and in special methods of examination by junior members of the Visiting Staff; he accompanies the Visiting Physician on his rounds, and has opportunity to see a great variety of disease and to witness autopsies on such cases as prove fatal. Once a week he visits the museum in the Pathological Department of the Medical College with a demonstrator, who exhibits specimens illustrating the lesions of diseases under observation.

The teaching equipment for the hospital services has been specially organized as follows:

NEW YORK HOSPITAL, CORNELL MEDICAL DIVISION.

Director, Professor of Medicine (in general charge).

HOSPITAL AND UNIVERSITY APPOINTEES.

Attending Physician, Professor of Clinical Medicine.

Associate Attending Physician, Assistant Professor of Medicine.

Associate Attending Physician, Instructor in Clinical Medicine.

Clinical Pathologist, Instructor in Clinical Medicine.

Pathologist, Professor of Bacteriology.

2 Assistant Pathologists.

HOUSE STAFF, 2 YEARS' SERVICE.

House Physician.

First Senior Assistant Physician.

Second Senior Assistant Physician.

Junior Assistant Physician.

Fellow in Medicine.

Clinical Clerks (in sections of 10).

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BELLEVUE HOSPITAL, CORNELL (SECOND MEDICAL)
DIVISION.

HOSPITAL AND UNIVERSITY APPOINTEES.

- 1 Director (Professor of Medicine).
- 2 Visiting Physicians { *a.* Professor of Applied Pharmacology.
 b. Professor of Therapeutics.
- 2 Assistant Visiting Physicians { *a.* Professor of Clinical Pathology.
 b. Assistant Professor of Clinical Medicine.
- 4 Adjunct Assistant Visiting Physicians.
 - a.* Chief of Clinic Out-patient Department.
 - b.* Instructor in Medicine.
 - c.* Instructor in Therapeutics.
 - d.* Instructor in Physical Diagnosis.
 - e.* Lecturer in Clinical Physiology.
- 1 Resident Clinical Pathologist.
- 1 Visiting Ophthalmologist.
- 5 House Staff { *a.* House Physician 2 years.
 b. Senior Physician 2 years.
 c. Junior Physician 2 years.
 d. Junior Physician 2 years.
 e. Physician 1½ years.
 f. Physician 1½ years.

UNIVERSITY APPOINTEES.

- 5 Laboratory Collaborators { *a.* Physiological Chemistry.
 b. Physiology.
 c. Experimental Therapeutics.
 d. Pathology.
 e. Clinical Pathology.

Clinical Clerks (in sections of 10).

- 1 Clinical Pathologist for Clinical Clerks.
- 1 Clinical Pathologist for Division Laboratory.
- 1 Trained Nurse to aid Clinical Clerks.
- 4 Trained Nurses to aid metabolism research.

This entire staff is on continuous duty throughout the College year, and during the summer season the service is maintained by a considerable portion of the Staff.

In addition to the regular hospital appointees and internes, the Medical College supplies from its Department of Medicine for service in Bellevue Hospital a corps of laboratory assistants, research workers and a special nurse, also on continuous duty, to bring the scientific work of the laboratories of Pharmacology, Experimental Therapeutics, Physiology and Clinical Pathology into close touch with the wards, to each of which laboratories one of the regular staff is delegated. Thus problems of metabolism, experimental

DETAILS OF THE PLAN OF INSTRUCTION.

therapeutics, serumtherapy, cardiography, bacteriology, etc., arising in connection with the diagnosis and treatment of the ward cases, find solution in the College laboratories, each of these laboratory workers being formally assigned to such work by the Professor of Medicine.

The hospital interne staff perform the routine duties of the wards, and are aided in their work by the clinical clerks.

Dispensary Classes.—During the third term of the fourth year the students visit the Dispensary daily, acting as clinical clerks under the instruction of the Chief of Clinic and his assistants. They are enabled to make diagnoses, suggest proper treatment and follow the results of their work from day to day. Every facility for diagnosis is offered through a branch of the Clinical Pathology Laboratory and the X-Ray Department of the Dispensary, and the service is so large that groups of cases illustrating varied phases of the same disease are constantly presented, and many conditions are shown in this ambulatory service which are not demonstrable among ward patients. Particular attention is given to the etiological factors of environment and occupation in the development of disease as well as to the importance of instruction in prophylaxis and hygiene as illustrated by these influences.

Clinics.—An Out-patient Clinic is held weekly by the Professor of Medicine in the Dispensary of the College, at which students are given ample opportunity to examine cases and discuss their ailments before the class in the informal manner of clinical conferences. Radiographic demonstrations are made a special feature of these clinics.

Medical clinics are held weekly in the amphitheatre of Bellevue Hospital by the Professor of Medicine. At these clinics students read written histories of cases which they have previously studied in the hospital wards. They are required to demonstrate their findings upon the patient, and are questioned before the entire class in regard to diagnosis and treatment. These clinics are also utilized by the Professor of Medicine to exhibit cases of exceptional rarity or difficult diagnosis, and some of them are conducted in coöperation with the Professor of Surgery in order to present to the students the value of conjoint medical and surgical points of view in appropriate cases.

Ward classes are conducted at the bedside during the fourth year in the wards of the Fourth Division of Bellevue Hospital by Professors Nammack and Lambert.

CLINICAL PATHOLOGY.

Instruction in Clinical Pathology is given to the third-year students, to the fourth-year students and to special and post-graduate students who apply for instruction in some particular subject.

In the third year the class receives instruction from January 1st until March 15th for two hours five days in the week—a total of twelve hours a week and one hundred hours for the course, which covers the teaching and practical application of methods for the examinations of urine, blood and

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blood-serum, sputum, exudates and transudates, spinal fluid, gastric contents, feces, and for the bacteriological examination of clinical material. Special demonstrations of unusual specimens, of blood diseases, and of parasites are also arranged for. After the completion of this preliminary training in laboratory methods, the students are expected, under the supervision of a demonstrator, to make proper examinations of laboratory material from cases which have been assigned them in the dispensary and hospital clinics. The third-year students, while assigned by sections to work in the medical clinic of the dispensary, are also expected to examine the laboratory material from dispensary cases.

During the summer months, from June to October, there is offered the opportunity for valuable routine work in the laboratory of Clinical Pathology, and during this time particularly the student will be encouraged to follow out original lines of work for which there is little time during the scholastic year.

In the fourth year, as in the last semester of the third year, the students are expected to make proper laboratory examinations for the study of cases assigned to them in the medical clinics, the dispensary and the hospital, and this work is under the supervision of one of the instructors in the laboratory of the Department of Clinical Pathology.

Fourth-year students, while assigned by sections to clinical clerkships in the wards of Bellevue Hospital, will make the necessary laboratory examinations in the division laboratory under the supervision of an assistant in Clinical Pathology.

During the fourth year the students are urged to devote some of their time to the pursuit of investigation in some subject pertaining to clinical pathology.

SUMMARY.

Medicine.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures .....	.....	22 hours.	.....
Recitations	32 hours.	42 hours.	.....
Clinics .....	.....	32 hours.	63 hours.
Clinical Clerkships* .....	.....	209 hours.	76 hours.
Dispensary Clerkships .....	.....	.....	67 hours.
Sections	96 hours.	22 hours.	34 hours.

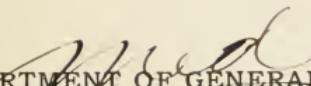
Clinical Pathology.

Laboratory, recitations and lectures..... 100 hours

Text-books.—Osler, *Practice of Medicine*; Musser, *Medical Diagnosis*; Tyson, *Physical Diagnosis*; Salinger and Kalteyer, *Medicine*; Emerson's *Clinical Diagnosis*.

*See also Departments of Therapeutics, Neurology and Pediatrics.

DETAILS OF THE PLAN OF INSTRUCTION.


DEPARTMENT OF GENERAL THERAPEUTICS.

~~FRANK S. MEARA, M.D., Professor of Therapeutics.~~ 3 0 0 0

Instructors.

MALCOLM GOODRIDGE, M.D., MONTGOMERY H. SICARD, M.D.,
CHARLES E. S. WEBSTER, JR., M.D.

This department, which is essentially one of Applied Therapeutics, co-operating closely with the Department of Chemistry, Pharmacology and Materia Medica, Physiology, Applied Pharmacology, and Experimental Therapeutics on the one hand, and with the Department of Medicine on the other, will seek to correlate these different fields of work so far as they relate to the treatment of the individual sick.

It will be the effort of this department to make the courses preëminently practical, and to offer to the student something tangible in his future relation to the patient as medical advisor. To this end the following courses will be offered:

Didactic Lectures.—These lectures will deal with the theories and modes of therapy and with the application of therapeutic measures, but always with reference to definite types of disease.

One hour a week during the last term of the third and throughout the fourth year. Required of third and fourth-year students. Professor Meara.

Clinical Clerkships.—In conjunction with the Department of Medicine this department will offer to each student a "clerkship" in the wards of Bellevue Hospital for a continuous period of service, half of which time will be devoted especially to problems of medicine and half to those of therapeutics. Each student will have assigned to him a group of cases for study. He will take the histories, make a record of his own examinations of the cases and the progress of the patients, and will make examinations of the urine, blood, stomach contents, fæces, etc., under the supervision of the resident clinical pathologist assigned to this service. The student will be quizzed daily, and his work visé by an assistant in the department, and will take part in conferences held by the Head of the Department on the subject matter of his assignments. He will follow his cases until their discharge from the ward, or, if the case comes to autopsy, will be present to assist and be given instruction at the section.

The student will follow the outline of the work done by the research assistants and fellows on his cases, and new cases will be assigned to him as the old ones are discharged. At present, assistants from the Departments of

CORNELL UNIVERSITY MEDICAL COLLEGE.

Medicine, Physiology, and Experimental Therapeutics, and a fellow in Medicine, are assigned to this work.

Recitations.—Recitations by an instructor will include those subjects to which this form of instruction is best adapted.

One hour a week for fifteen weeks, February to May. Required of fourth year students. Dr. Goodridge.

Section Work in the College Dispensary.—Students in the fourth year, during their period of "clinical clerkship," will be instructed in the College Dispensary, the material of which affords a different class of cases from those observed in the wards of the hospital. Drs. Sicard and Webster.

Original Work.—An opportunity is afforded for those who show special adaptability to carry forward therapeutic work along the lines of original investigation.

SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures	11 hours.	32 hours.
Clinical Clerkships*	79 hours.	76 hours.
Recitations .....	.....	15 hours.

*See also Department of Medicine.

SURGERY.

LEWIS A. STIMSON, M.D., *Professor of Surgery.*

CHARLES L. GIBSON, *Adjunct Professor of Surgery.*

JOHN A. HARTWELL, M.D., *Assistant Professor of Surgery.*

ALFRED S. TAYLOR, M.D., *Professor of Operative Surgery.*

Professors of Clinical Surgery.

GEORGE WOOLSEY, M.D.,

WILLIAM B. COLEY, M.D.,

JOHN ROGERS, M.D.,

IRVING S. HAYNES, M.D.

Assistant Professor of Clinical Surgery.

JAMES MORLEY HITZROT, M.D.,

Instructors.

BURTON J. LEE, M.D.,

SEWARD ERDMAN, M.D.,

JOSEPH P. HOGUET, M.D.,

ARTHUR E. HOAG, M.D.,

LUCIUS A. WING, M.D.,

HENRY PEARSON, M.D.,

FENWICK BEEKMAN, M.D.,

JOHN C. A. GERSTER, M.D.,

HAROLD E. SANTEE, M.D.,

HARRY VAN NESS SPAULDING, M.D.

Surgery is taught in the recitation room, at the bedside, in the dispensaries, at hospital clinics, and by lectures.

In the second year the students are required to attend recitations in surgery, and are instructed in surgical examination and diagnosis in the College Dispensary.

Operative surgery is taught in this year; it is found that by thus advancing it in the course the students are enabled better to remember their anatomy

DETAILS OF THE PLAN OF INSTRUCTION.

and to understand the technique of surgical operations. The course consists of recitations, operative work on the cadaver, and the application of bandages and plaster dressings. As the material is abundant, each member of the class will perform the principal operations.

In the third year recitations are continued upon regional surgery; the class is instructed in sections in the New York Hospital in history taking and methods of surgical examination and diagnosis, three hours a week for the first term, and one hour a week in minor surgery in the College Dispensary in the second term.

Formal clinics, including those on fractures and dislocations, are held in Bellevue Hospital, thirty-three lectures are given by the Professors of Surgery, and a college clinic for diagnosis is held once a week throughout the term, at which the students are required personally to examine and report upon the cases.

In the second and third terms students are instructed at the New York Hospital, where practical instruction by operative and post-operative work is given by the Adjunct Professor of Surgery.

In the fourth year the students in the first term receive clinical instruction, in small groups in several hospitals and dispensaries, on general surgery and the special branches—eye, ear, nose and throat, urology, gynecology, dermatology and orthopædics—may attend the lectures and clinics, and will have a review quiz in preparation for examination.

The members of the sections are trained in the examination of patients, the dressings of wounds and fractures, the administration of anesthetics, and assisting at operations.

During the second term the students serve as clinical clerks in the surgical service of the Bellevue Hospital for six weeks.

The opportunities for instruction in the special branches are exceptionally ample. There are several clinical teachers in each subject, each with hospital and dispensary services. The student will be enabled directly to examine and study cases, and will have a certain choice as to the time given to each branch.

Instruction in practical surgery under the direction of the Assistant Professor of Surgery is continued at the New York Hospital throughout the third term.

Lectures on special topics are given in a lecture course in the first term, to which students of all the classes are admitted, but the more intensive instruction of the fourth year in the Department of Surgery is given in the wards of Bellevue Hospital during the second term.

HOSPITAL WORK.

The Cornell University Medical College through its control of the first surgical service of the New York Hospital and the second surgical division of the Bellevue Hospital possesses every facility necessary for the efficient teaching of practical surgery and surgical pathology.

The Staff of Instruction at the New York Hospital is at present organized as follows:

CORNELL UNIVERSITY MEDICAL COLLEGE.

NEW YORK HOSPITAL, CORNELL (FIRST SURGICAL)
DIVISION.

CHARLES L. GIBSON, *Adjunct Professor of Surgery, Attending Surgeon.*

JAMES M. HITZROT, *Assistant Professor of Clinical Surgery, Associate Surgeon.*

BURTON J. LEE, *Instructor in Surgery, Associate Surgeon.*

The work is carried on in collaboration with the additional appointees from the Department of Pathology.

The division consists of about 60 surgical beds and a variable proportion of the children's service. The service is acute in character, and is particularly rich in the graver emergency and traumatic material.

Attached to this division is also a large Dispensary (Tuesday, Thursday and Saturday mornings), which furnishes valuable material for instruction and includes departments in urology, orthopedics, gynecology and dental surgery.

The resources of the Pathological Department under Professor Elser afford valuable opportunities for the study of surgical pathology, and an intimate connection between the two departments will be maintained. With the further organization of this new service opportunities for the pursuit of original work and research will be developed.

Instruction as now arranged consists of bedside instruction, diagnosis, operative and post-operative clinics, practical instruction in sections (with utilization of the Dispensary clinical material) and clinical clerkships. This last course is given in the last term of the third and the second term of the fourth years. The students, divided into small groups, spend most of their time for three weeks in the hospital. They are assigned certain patients, and these they interrogate, make physical examinations, and carry out suitable investigations in clinical pathology. The course of each patient is studied thoroughly, both independently by the student and in connection with the visits of the Attending Surgeon, and at operation the student is given suitable opportunities to become familiar with the necessary technical procedures and pathological findings. In this course the student is encouraged to develop his work along his own initiative, while suitable supervision is furnished to insure efficiency.

The Second Surgical Division of Bellevue Hospital is under the care of the Cornell University Medical College. Its Staff has been organized as follows:

BELLEVUE HOSPITAL, CORNELL (SECOND SURGICAL)
DIVISION.

LEWIS A. STIMSON, M.D., *Professor of Surgery, Consulting Surgeon.*

JOHN A. HARTWELL, M.D., *Assistant Professor of Surgery, Visiting Surgeon.*

GEORGE WOOLSEY, M.D., *Professor of Clinical Surgery, Visiting Surgeon.*

JOHN ROGERS, M.D., *Professor of Clinical Surgery, Visiting Surgeon.*

JAMES M. HITZROT, M.D., *Assistant Professor of Clinical Surgery, Assistant Visiting Surgeon.*

DETAILS OF THE PLAN OF INSTRUCTION.

BURTON J. LEE, M.D., *Instructor in Surgery, Assistant Visiting Surgeon.*

SEWARD ERDMAN, M.D., *Instructor in Surgery, Adjunct Assistant Visiting Surgeon.*

JOSEPH P. HOGUET, M.D., *Instructor in Surgery, Adjunct Assistant Visiting Surgeon.*

—————, *Externe Clinical Pathologist.*

The Division consists of 90 surgical beds in addition to those devoted to surgical pediatrics, genito-urinary diseases and gynæcology, the hospital instruction in which is outlined under their respective departments. The service is so arranged that an Assistant Professor or a Clinical Professor is on continuous duty throughout the College year.

In addition to the regular hospital appointees the College supplies a special nurse to assist in the cases under investigation and in the work of the surgical clerks. The hospital interne staff perform the routine duties of the wards, and are assisted in history taking, dressing, etc., by the surgical clerks, who spend their entire day in the wards during their period of clerkship, these privileges being extended exclusively to the students of the Cornell University Medical College.

Research workers are assigned from the laboratory of Clinical Pathology and Surgical Pathology of the College so that the more intricate problems of nutrition, serumtherapy, bacteriology, etc., arising in connection with the diagnosis and treatment of patients, may find ultimate solution in the College laboratories, thus supplementing the facilities afforded by the hospital itself.

Surgical "Clerkships."—The intensive ward teaching is done under this head in the wards of the New York and Bellevue hospitals during the last term of the third year and during a period of twelve weeks immediately following the Christmas recess. The students are assigned in two divisions under the direction respectively of an Assistant Professor and a Clinical Professor of Surgery aided by the corps of instruction.

Each student devotes his entire day to the work continuously for six weeks. He is assigned to the study of a certain number of patients, and is enabled to follow the complete course of the disease from the admission of the patient to his discharge. In the event of death he is present at the autopsy should one be performed.

In this way the student has an opportunity to follow to a conclusion a large number of surgical affections, and he is instructed in the proper methods of surgical history taking, surgical physical examinations, surgical dressings, operative surgery as seen at the operating table. He is also instructed in the laboratory study, including bacteriology, of the blood, urine, fæces, exudates, and transudates. This laboratory work is done under the direction of the staff in the laboratories connected with the wards and in the College laboratories, and is under the immediate charge of the Clinical Pathologist to the Division. As a supplement to the above teaching, each student spends some time in the gross pathological museum, where he is instructed in a series of lesions illustrating the cases under his observation.

CORNELL UNIVERSITY MEDICAL COLLEGE.

By this method of instruction, each student comes into intimate contact with a large number of surgical patients, and is required to make a complete study of each one from every standpoint. He has constantly at his service two or more of the teaching staff to guide him in his work, and impress on him the proper methods of observation and study.

SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures	30 hours.	33 hours.	42 hours.
Recitations	30 hours.	32 hours.	33 hours.
Clinics	26 hours.	54 hours.	67 hours.
Sections	40 hours.	79 hours.	40 hours.
Operative Surgery	209 hours.	222 hours.	
Clinical Clerkships			

Text-book.—*American Text-book*; Rose and Carless, *Surgery*; Choyce. *A System of Surgery*.

Collateral Reading.—Parks, *Surgery*; Lexer-Bevan, *General Surgery*; Stimson, *Fractures and Dislocations*; Binnie, *Operative Surgery*, 5th Edition.

OBSTETRICS.

J. CLIFTON EDGAR, M.D., *Professor of Obstetrics and Clinical Midwifery.*

Instructors.

HAROLD C. BAILEY, M.D.,

GEORGE D. HAMLEN, M.D.,

ALBERTUS A. MOORE, M.D.,

HAROLD E. SANTEE, M.D.

Instruction in obstetrics will be given during the second and third years by
 1. Recitations. 2. Lectures. 3. Obstetric clinics and conferences. 4. Attendance upon cases of confinement. 5. Manikin practice and section work.
 6. Obstetric histology, pathology, and bacteriology.

1. **Recitations** from a standard text-book will be held by an instructor in obstetrics during the second year.

2. **The Lectures** comprise a systematic course running through part of the third year, upon the physiology and pathology of obstetrics.

These lectures are theoretical to a limited extent only, being mainly demonstrative and illustrative in character. To this end ample blackboard space is used, as well as a collection of pelvis, entire, normal and deformed, mesial sections of the same, and in addition a supply of diagrams, charts, selected plaster, composition, and metal models, wet and dry preparations, and instruments.

3. **Obstetric Clinics and Conferences.**—A weekly obstetric clinic is held by Professor Edgar for the third year class at the Manhattan Maternity and Dispensary, 327 East 60th Street. At this clinic abnormal cases of pregnancy, labor, and the puerperium are demonstrated, and the major and minor obstetric operations performed.

DETAILS OF THE PLAN OF INSTRUCTION.

In addition, infant feeding and the care of mother and child during the lying-in period and early infancy are taught. Members of the class will be called upon to examine patients and discuss etiology, diagnosis, prognosis, and treatment.

4. Attendance upon Cases of Confinement.—Each candidate for the degree of M.D. is required to present satisfactory evidence to the effect that he has attended a definite number of cases of confinement. To fulfil this requirement students may register as internes in the Manhattan Maternity and Dispensary, 327 East 60th Street. Students are lodged in the above hospital for periods of two weeks or more, and attend confinement cases both in the hospital building and in the tenement house districts of the upper east side of the city.

During the student's attendance upon his practical maternity course he may be excused from the exercises of the College during the fourth college year, otherwise he shall take his practical obstetric course during vacation time (see page 27). Further information concerning the practical obstetric work may be obtained by applying at the secretary's office.

5. Manikin Practice and Section Work.—Manikin practice is given to sections of the class during the third year, and consists of work by individual students upon the manikins, under the supervision and criticism of an instructor.

The mechanical phenomena of labor; modes of delivery; abnormal presentations and positions, with methods of delivery of each; version; application of the forceps, and other manipulations, will be demonstrated by the instructor and performed by the student.

The sections will also be instructed at the bedside at Bellevue Hospital in the management of pregnant and parturient women, the care of the newborn child, abdominal palpation, and pelvic mensuration.

6. Obstetric Histology, Pathology, and Bacteriology.—Laboratory instruction is given in the Departments of Anatomy and Pathology upon the histology of the vulva, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions, and upon the histology and pathology of the decidua, chorion, placenta, and umbilical cord.

SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>
Lectures .....	.....	21 hours.
Recitations	32 hours.	.....
Clinics .....	.....	64 hours.
Sections .....	.....	44 hours.

Text-book.—Edgar, *Practice of Obstetrics.*

CORNELL UNIVERSITY MEDICAL COLLEGE.

DEPARTMENT OF PATHOLOGY.

**General Pathology, Pathological Anatomy, Experimental Pathology,
Chemical Pathology, Bacteriology.**

JAMES EWING, M.D., *Professor of Pathology.*

WILLIAM J. ELSEY, M.D., *Professor of Bacteriology.*

OTTO H. SCHULTZE, M.D., *Assistant Professor of Pathological Anatomy and
Professor of Medico-Legal Pathology.*

JOHN C. TORREY, Ph.D., *Assistant Professor of Experimental Pathology and
Lecturer on Hygiene.*

MAX G. SCHLAPP, M.D., *Assistant Professor of Neuro-pathology.*

CHARLES NORRIS, M.D., *Demonstrator in Pathological Anatomy.*

WILLIAM H. TYTLER, M.B., *Instructor in Pathology.*

FRANK M. HUNTOON, M.D., *Instructor in Bacteriology.*

BURTON J. LEE, M.D., *Instructor in Surgical Pathology.*

ARTHUR F. COCA, M.D., *Instructor in Experimental Pathology.*

JAMES B. GERE, M.D., *Instructor in Neuro-pathology.*

ELISE S. L'ESPÉRANCE, M.D., *Instructor in Pathology, and Librarian.*

ALFRED RAHE, *Assisant in Experimental Pathology.*

CHARLES S. B. CASSASSA, M.D., *Assistant in Pathological Anatomy.*

GENERAL PATHOLOGY.

The course of instruction in Pathology begins in the third term of the second year with lectures on the theory and classification of inflammations, which are designed to acquaint the student with the main facts in this field, to prepare him for studies in medicine and surgery, and to establish a uniform system of nomenclature to be used in this and other departments. These are followed by systematic laboratory instruction consisting of microscopical demonstrations and lectures on the pathology of Degeneration, Inflammation, Infectious Granulomata, and Tumors. At the same time demonstrations of gross pathological specimens are conducted illustrating these and other diseases, while the work in Bacteriology occupies the afternoon hours of this session.

In the first term of the third year the Special Pathology of the organs is taken up, including Dermato-pathology and Protozoan Diseases, and demonstrations in Pathological Anatomy are continued. The second term of the third year is occupied with courses in the Pathology of Surgical Diseases, Gynæcological Diseases and Diseases of the Nervous System.

In the fourth year the student performs autopsies, and attends Lectures in Hygiene, Immunity, and other selected topics.

DETAILS OF THE PLAN OF INSTRUCTION.

SCHEME OF INSTRUCTION IN PATHOLOGY.

I. General Pathology.—Lectures, museum and microscopical demonstrations, 99 hours. Required in the third term of second year.

(a) Degeneration, Inflammation, Infectious Granulomata, 66 hours, March, April.

(b) Tumors, 33 hours, April, May.

II. Special Pathology.—Lectures, museum and microscopical demonstrations, 168 hours. Required in first and second terms of third year.

(a) General Diseases. October, November, December.

(b) Dermato-pathology. January.

(c) Protozoan Diseases. January.

(d) Surgical Pathology. January.

(e) Gynæcological Pathology. February.

(f) Neuro-pathology. March.

Profs. Ewing and Schlapp, and Drs. Tytler, L'Espérance and Gere.

III. Pathological Anatomy.—On the days alternating with the studies in General and Special Pathology demonstrations of gross pathological specimens are held on the material collected from autopsies. With the viscera of each case is presented an epitome of the clinical history, and when necessary frozen sections of the organs are made, and the relation of the gross and microscopical changes to the clinical symptoms is explained. The student here sees the organs of many of the fatal cases studied in hospital wards. Gross pathological diagnosis is taught as a separate branch of this subject.

Lectures and demonstrations, 108 hours. Required in the third term of second year, and in first and second terms of third year. Professor Schultze and assistant.

IV. Medico-legal Pathology.—The medico-legal relations of Pathology are extensively illustrated in the material collected at the Morgue and various hospitals, and special attention is devoted to this subject in the third and fourth years. Professor Schultze.

V. Autopsy Technics.—In the fourth year the student performs autopsies at the Morgue in two-hour periods twice a week during five weeks of the first term, and once a week for ten weeks during the second term. 40 hours. Professor Schultze and Dr. Norris and assistants.

VI. Lectures in Special Pathology.—Lectures on special topics in Pathology are given during the third and fourth years. The lectures cover such subjects as immunity, the etiology of tumors, cerebral hemorrhage, and the pathology of diseases of nutrition. At suitable times the topics that are being pursued in the research laboratories and the objects of these researches may be presented to the student in special lectures. Profs. Ewing, Elser, Schultze, Torrey, and Schlapp.

VII. Lectures in Chemical Pathology.—See page 36.

CORNELL UNIVERSITY MEDICAL COLLEGE.

VIII. Recitations.—One recitation every week is required of each student throughout the course in General and Special Pathology. These exercises cover the work of the preceding week, and are of the nature of conferences for the fuller discussion of the topics considered.

IX. Examinations.—Written and practical examinations are held at the end of each year. The standing of the student is determined from the theoretical and practical work, the recitations, and the examination.

EXPERIMENTAL PATHOLOGY.

In this department are associated a number of men whose time is devoted to the study of problems in medical science. Abundant space and modern facilities are provided in the Loomis Laboratory, in which are laboratories equipped for Experimental Pathology, Bacteriology and Hygiene, Serum Pathology, Chemical Pathology, and Micro-photography. Instruction has been given to a number of assistants and volunteer workers who desired to enter the field of research in these subjects, and is available to properly qualified applicants.

The members of this staff include: Prof. Torrey, Dr. Coca, Mr. Rahe, and others.

Since 1904 the work of the Huntington Fund for Cancer Research has been located in the Laboratories of the Cornell University Medical College.

The organized work in connection with this subject has been distributed among the Departments of Pathology, Prof. Ewing; Experimental Pathology, Dr. Coca; Chemistry, Prof. Benedict; Anatomy, Prof. Stockard; Experimental Therapeutics, Profs. Beebe and Weil. Clinical studies are being conducted at the General Memorial Hospital under Profs. Ewing, Weil and Coley, and Drs. Samuel Brown and H. H. Janeway; at Bellevue Hospital under Prof. Hartwell; at the New York Hospital in connection with the Department of Pathology under Prof. Elser; and in Comparative Medicine under A. Schlesinger, D.V.S.

BACTERIOLOGY.

In the course in bacteriology the student is first made familiar with the methods of disinfection, and is required to prepare the ordinary culture media. The work then proceeds to the methods of staining and examining bacteria, their artificial cultivation and the study of biological characters, the methods employed in the separation of species, the general relation of pathogenic bacteria to disease, and concludes with the biological analysis of air, water, soil, and milk. Cultures are made from the viscera of cases of the various infectious diseases, and the student is required to cultivate and identify the important pathogenic micro-organisms. The work is supplemented when necessary by the use of pure cultures and by the exhibition of anaërobic cultures. Each student receives practical instruction in the artificial immunization of animals and in the demonstration of the reactions of immunity.

Laboratory work and lectures. 165 hours. Required in the second year. Prof. Elser and Dr. Huntoon.

DETAILS OF THE PLAN OF INSTRUCTION.

SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
General Pathology	99 hours.	.....	.....
Special Pathology .....	.....	168 hours.	.....
Pathological Anatomy	66 hours.	42 hours.	.....
Autopsy Technics .....	.....	.....	46 hours.
Bacteriology	165 hours.	.....	.....

168
168
165
91

586

DEPARTMENT OF EXPERIMENTAL THERAPEUTICS.

- ~~S. P. BEEBE, M.D., Professor of Experimental Therapeutics.~~
~~RICHARD WEIL, M.D., Assistant Professor of Experimental Therapeutics.~~
~~ELEANOR VAN ALSTYNE, B.S., Ph.D., Instructor in Experimental Therapeutics.~~
~~ROBERT A. COOKE, M.D., Assistant in Experimental Therapeutics.~~
~~JESSIE MOORE RAHE, A.M., Assistant in Experimental Therapeutics.~~
~~S. FELDSTEIN, M.D., Assistant in Experimental Therapeutics.~~
~~WILLIAM DUNN, Assistant in Experimental Therapeutics.~~

The Department of Experimental Therapeutics has been established in order to facilitate the application of the medical sciences to the problems of practical therapeutics and to coördinate the work of the other scientific and clinical departments in this field. The Loomis Laboratory has been remodeled in order to provide proper accommodations for this work. New laboratories have been equipped with modern facilities for work in physiology, pathology, serum pathology and physiological chemistry, with ample space for the care of the animals and a fully equipped operating room.

Opportunities for research will be afforded to volunteer workers who have had the requisite training, and who can give sufficient time. The location of the laboratory opposite the new Bellevue Hospital assures an abundance of clinical material.

The establishment of these laboratories will make it possible to extend the work of the Huntington Fund for Cancer Research in the direction of Experimental Therapeutics.

CORNELL UNIVERSITY MEDICAL COLLEGE.

SPECIAL DEPARTMENTS OF MEDICINE AND
SURGERY.

NEUROLOGY.

CHARLES L. DANA, M.D., *Professor of Clinical Medicine, Department of Neurology.*

R. FOSTER KENNEDY, M.D., *Assistant Professor of Clinical Medicine, Department of Neurology.*

Instructors.

H. W. FRINK, M.D.,

C. P. OBERNDORF, M.D.

The regular work consists of a preliminary series of lectures by Professor Dana, in which the general outline of the work for the year is given, with demonstrations of the general anatomy, general symptomatology, and methods of examination of the nervous system. During the rest of the term clinical lectures on nervous diseases are held weekly in the amphitheatre of Bellevue Hospital or at the college. Section work is given weekly to classes in the dispensary of the college. In this dispensary, section work instruction is given in history-taking, in the examination of patients, and in electro-therapeutics.

It is considered of the greatest importance that the student of nervous diseases be thoroughly grounded in the anatomy and physiology of the nervous system, therefore courses in gross and microscopical anatomy of the nervous system are provided in the histological laboratory and, similarly, a course in neuro-pathology is given in the pathological laboratory.

Thus the course of instruction aims to provide the student before he graduates with instruction in the microscopical anatomy of the nervous system, in its physiology and pathology, and also with practical clinical instruction in the amphitheatre, at the bedside, and in the dispensary.

Hospital Work.—In the second term of the fourth year students are assigned to ward work in the wards of Bellevue Hospital and at the Neurological Institute, where under the direction of the Professor of Neurology each student is assigned cases for study, and is required to compile complete histories, make examinations, become thoroughly familiar with the case in every aspect, and discuss in conference the diseases thus studied. In addition to the opportunity for a complete study of neurological cases thus afforded, the work of the clinical clerk is extended by visits with the Professor or Instructor in charge to the psychopathic and alcoholic wards of the hospital, where the neurological phases of these cases are discussed in conference. The conduct of the ward work is under the direction of the Professor of Neurology, who is a Consulting Physician to Bellevue Hospital, and who is assisted by the Assistant Professor, the Assistant Visiting Physicians of the Second (Cornell) Medical Division, and by the special laboratory workers

SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

and nurses assigned to the wards, so that opportunity is offered for the complete study of every phase of nervous disease as exhibited in the wards of a large hospital. In this way the student may obtain an intimate knowledge of the important forms of nervous disease.

SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures	5 hours.	.....
Clinics	27 hours.	32 hours.
Sections .....	.....	4 hours.
"Clinical Clerkships" .....	.....	63 hours.

Text-book.—Dana, *Diseases of the Nervous System and Psychiatry.*

Collateral Reading.—Gowers, *Diseases of the Brain and Spinal Cord*: works on nervous diseases by Dercum, Mills, Sachs, Starr, Church and Peterson, Oppenheim, Bing and Stewart.

PSYCHO-PATHOLOGY.

AUGUST HOCH, M.D., *Professor of Clinical Medicine, Department of Psychopathology.*

Clinical Instructors.

W. W. WRIGHT, M.D.,

JOHN T. MACCURDY, M.D.

CLARENCE O. CHENEY, M.D.,

WALTER L. TREADWAY, M.D.,

RALPH P. FOLSOM, M.D.

The course will cover the principal data and methods of modern psychopathology, and the diagnosis and treatment of mental disorders, with constant reference to the earliest manifestations.

It consists of clinical demonstrations and practical exercises, as well as didactic lectures.

Students are enabled to spend an entire morning in the wards of Manhattan State Hospital on Ward's Island, which is readily reached by ferry from the foot of East 116th Street. By thus devoting a continuous period of three hours weekly for nine weeks to work with cases, and one hour weekly to systematic didactic lectures, opportunity is afforded for training in methods of examination and observation, and for instruction in the principles of disorders which are of importance not alone for the marked psychoses, but for the milder mental abnormalities which often form a part of other diseases.

SUMMARY.

Fourth Year.

Clinical demonstrations and practical exercises..... 27 hours.

General lecture 9 hours.

Reference book.—Kraepelin, *Text-book on Clinical Psychiatry*, translated and abridged by Diefendorf; White, *Outlines of Psychiatry*.

PEDIATRICS.

JOSEPH E. WINTERS, M.D., *Professor of Clinical Medicine, Department of Pediatrics.*

Clinical Instructors.

WILLIAM SHANNON, M.D.,

JOSEPH C. ROPER, M.D.

WILLIAM D. TYRRELL, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE.

This department will embrace clinical instruction and section teaching in all the important diseases of infancy and childhood.

There will be one clinical lecture each week in the college building, and clinical lectures in the Willard Parker Hospital on scarlet fever and diphtheria.

In connection with the dispensary of the Children's Department in the college building there is an amphitheatre for section teaching, and isolation rooms for contagious diseases, so that students have ample opportunity for the personal study of disease.

Two hours each week will be devoted to section teaching in the dispensary to the students of the fourth year.

Students will be required to examine sick children and discuss the diagnosis and treatment of patients assigned to them.

Special attention is given to the hygiene and feeding of infants; the digestive disorders of infants; the dietetics of childhood and the food disorders of infancy and childhood; the anatomical and physiological peculiarities of infancy and childhood; and the influence these peculiarities have on the manifestations of disease in children.

One of the distinguishing features of this department will be the instruction of each student in the art of diagnosis by the professor in charge.

There will be practical bedside illustrations of the management, care, and therapeutics of all the acute diseases of infancy and childhood.

In the Department of Clinical Pathology every examination pertaining to this subject will be elaborately taught. Clinical diagnosis takes precedence; laboratory tests and clinical pathology are fully utilized for confirmation. Microscopical examinations will be made of secretions and excretions, of lesions of the mouth and throat, and of sections of anatomical lesions of the important diseases of childhood. Radiographs are used extensively as an aid to diagnosis.

Hospital Work.—Students are assigned for a continuous service as clinical clerks, daily 1-5 P.M., for a period of three weeks, in the wards of the New York Hospital. Each student will be assigned a certain number of cases, and will be required to take the history, make physical and pathological examinations, and observe and coöperate in the treatment of the patient. Such patients are followed from their admission to the hospital to their discharge, or to the completion of the clerkship.

Conferences with the instructor are held each afternoon, at which the student must demonstrate the cases of which he is required to make a complete study, and to discuss all phases of the disease. This work has been arranged by the Professor of Pediatrics, and is done under the immediate direction of a clinical instructor.

SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics	32 hours.	32 hours.
Sections .....	.....	18 hours.
Clinical Clerkships .....	.....	63 hours.

SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

Text-book.—Still, *Common Disorders and Diseases of Childhood*; Holt, *Diseases of Infancy and Childhood*, fifth edition, 1909; Rotch, *Pediatrics*.

Collateral Reading.—Starr, *American Text-book on the Diseases of Children*; Ker, *Infectious Diseases*.

GYNÆCOLOGY.

WILLIAM M. POLK, M.D., *Professor of Clinical Surgery, Department of Gynæcology.*

CHARLES C. BARROWS, M.D., *Assistant Professor of Clinical Surgery, Department of Gynæcology.*

Lecturer.

GEORGE G. WARD, JR., M.D.

Instructors.

GEORGE D. HAMLEN, M.D.,

LEROY BROWN, M.D.

Instruction in gynæcology is given by conferences, lectures, ward studies and demonstrations, clinics, and laboratory demonstrations.

Laboratory Demonstrations are given to the sections of the fourth year class during the second term. A review of the microscopic structures of the normal organs is taken up with the class. This course is followed by the microscopic study of the diseased tissues, as well as the gross pathology from fresh and preserved specimens.

Ward Demonstrations are given to sections of the fourth-year class three a week throughout the second term. This instruction includes the examination of patients by the students, who are thereby drilled in the methods of physical diagnosis as applied to the pelvis. When necessary the patients are anesthetized.

The routine treatment appropriate to the various conditions found is demonstrated, the students assisting when possible. In this way, not only is familiarity acquired with normal conditions within the pelvis and the various departures from this state induced by disease, but opportunity is afforded to see and put in actual practice measures of relief, and to watch the subsequent course and treatment of these cases.

Operations are performed every week at which the several sections are enabled to study the detail of every operation peculiar to this department.

In connection with the ward demonstrations instruction is given in gynecological cystoscopy; the technic of endoscopy, cystoscopy catheterizations of ureters and testing of kidney efficiency as applied to gynecological cases, with the treatment, local and general, of cases in the gynecological wards of Bellevue Hospital, and in the College Clinic.

A General Clinic is held once a week during the first term, at which students selected in rotation are required to examine the patient, make a diagnosis, and suggest treatment. The examinations are begun in the ward and continued when the patient is anesthetized. The students are questioned before the class upon all these topics, as they relate to the case in hand, so as to determine the correctness of their conclusions. Should operation be called for, it is then performed.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Laboratory Demonstrations of secretions, discharges, and specimens obtained from patients who come under observation during this course are made to sections of the third-year class as a part of the course in clinical pathology.

SUMMARY.

Fourth Year.

Clinics	22 hours.
Demonstrations and Conferences.....	40 hours.

Text-books.—Penrose, *Diseases of Women*; Findley, *Diagnosis*; Ashton, *Gynæcology*.

Collateral Reading.—Dudley, *Gynæcology*; Garrigues, *Diseases of Women*.

UROLOGY.

EDWARD L. KEYES, JR., M.D., *Professor of Clinical Surgery, Department of Urology.*

Clinical Instructors.

DAVID WALLACE MACKENZIE, M.D., BENJAMIN S. BARRINGER, M.D.

The courses in this department are required of students during the third and fourth year. They are designed to give instruction in diagnosis and treatment of the surgical diseases of the male genital and urinary organs and syphilis.

Clinic.—A clinic will be given in the amphitheatre of Bellevue Hospital once each week, during the first and second terms, by Professor Keyes. At this clinic the principal operations upon the male urinary and genital organs will be performed before the class, and special attention will be given to the subject of diagnosis and post-operative management of cases. Attendance upon these clinics is required of third year students.

Lectures.—Third year. A course of ten lectures will be given to the third-year class during the first term of the college session.

Section Teaching.—Third year. The third-year class will be divided into sections of small size for instruction in the College Dispensary during the first term.

Hospital Work.—Students assigned to surgical clerkships in the wards of Bellevue Hospital (page 48) are also assigned to the study of cases in the wards devoted to genito-urinary diseases, and are required to follow these cases to a conclusion just as is done in the wards devoted to general surgery. Thus, during a service of five weeks as surgical clerks, opportunity is afforded for the complete study of a considerable number of cases in the urological wards, and the student is required to become thoroughly familiar with these diseases.

SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics	21 hours.	.....
Sections	32 hours.	.....
Lectures	10 hours.	.....
Clinical Clerkships .....	.....	(see page 50)

Text-books.—Keyes.

Collateral Reading.—Watson and Cunningham, Morton.

SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

DERMATOLOGY.

GEORGE T. ELLIOT, M.D., *Professor of Clinical Surgery, Department of Dermatology.*

JAMES C. JOHNSTON, M.D., *Assistant Professor of Clinical Surgery, Department of Dermatology.*

Clinical Instructors.

HANS J. SCHWARTZ, M.D.

W. J. HEIMANN, M.D.

Instruction in Dermatology and Syphilology will be given by the Clinical Professor and his assistants. No teaching will be given didactically, but the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal contact and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration. Instruction will also be given in the intravenous and other forms of treatment by salvarsan and neosalvarsan.

SUMMARY.

Fourth Year.

Sections 28 hours.

Text-books.—Stelwagon, *Diseases of the Skin*; Crocker, *Dermatology*.

LARYNGOLOGY AND RHINOLOGY.

HARMON SMITH, M.D., *Professor of Clinical Surgery, Department of Laryngology and Rhinology.*

Clinical Instructor.

FRANKLIN T. BURKE, M.D.

The professor of the department gives instruction to the fourth year students by didactic lectures and clinical exercises. In this work he is assisted by the clinical instructor and his other assistants. The lectures are illustrated by plates, models and stereopticon projections and later demonstrated in the clinic.

Each student is individually instructed in the ordinary methods of examination of the nose and throat and shown the recent measures employed in laryngoscopy and bronchoscopy.

SUMMARY.

Fourth Year.

Sections 15 hours.

Text-books.—St. Clair Thomson, *Diseases of the Nose and Throat*.

Collateral Reading.—Wright and Smith, *Diseases of the Nose and Throat*; Knight, *Diseases of the Nose and Throat*.

OPHTHALMOLOGY.

ROBERT G. REESE, M.D., *Professor of Clinical Surgery, Department of Ophthalmology.*

Clinical Instructors.

JOHN M. WHEELER, M.D.,

GEORGE W. VANDEGRIFT, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Instruction in Ophthalmology consists of section teaching in the third term of the fourth year, two hours a week for eleven weeks, at the College Dispensary. The sections are of the nature of clinical conferences, and consider the subjects of the external or superficial diseases of the eye, the anomalies of the ocular muscles, and the deep lesions of the eye which are not susceptible of clinical demonstration. The sectional teaching at the college dispensary is devoted partly to clinical ophthalmology and the use of the ophthalmoscope, and partly to instruction in the errors of refraction and the rudiments of the fitting of lenses. Thus the entire field of ophthalmology is covered.

SUMMARY.

Fourth Year.

Sections 22 hours.

Text-book.—Weeks.

Collateral Reading.—De Schweinitz, May, Fuchs.

OTOLOGY.

FREDERICK WHITING, M.D., *Professor of Clinical Surgery, Department of Otolology.*

Clinical Instructor.

GEORGE B. McAULIFFE, M.D.

For clinical instruction in Otology, the fourth-year class is divided into sections. Each student receives practical instruction in the College Dispensary from Professor Whiting and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and, after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications, at the New York Eye and Ear Infirmary.

SUMMARY.

Fourth Year.

Sections 15 hours.

Text-book.—Bacon, *On the Ear.*

Collateral Reading.—Politzer, *Diseases of the Ear*; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*; Whiting, *The Modern Mastoid Operation.*

ORTHOPÆDIC SURGERY.

CHARLTON WALLACE, M.D., *Professor of Clinical Surgery, Department of Orthopædic Surgery.*

Clinical Instructors.

ARTHUR H. CILLEY, M.D.,

CARL R. KEPPLER, M.D.,

BRAINERD H. WHITBECK, M.D.

The instruction in this Department is in the fundamental principles of Orthopedic Surgery and their application in the treatment of individual patients.

This is carried on in the fourth year:

SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

I.—During the second term:

(a) Didactic and clinical lectures are given for one hour a week to the entire class in the college lecture room.

(b) Each section of the class receives bedside instruction in the wards of the Hospital for the Ruptured and Crippled for three mornings a week for six weeks. Here there is an unsurpassed variety of congenital and acquired deformities. The students are taught the methods of examination and then are required to examine the patient and give a concise résumé of the history of the case, physical examination and the treatment to be employed.

Following this is an informal quiz on the topic of the day.

II.—During the third term:

The students are trained in the use of plaster of Paris and braces in the actual treatment of the patients.

SUMMARY.

	<i>Fourth Year.</i>
Lectures	12 hours.
Recitation	18 hours.
Sections	9 hours.
Ward Work	24 hours.

Text-books.—Whitman.

ROENTGENOLOGY.

LEWIS G. COLE, M.D., *Professor of Roentgenology.*

ARTHUR HOLDING, M.D., *Assistant.*

A course of lectures in Roentgenology accompanied by demonstration will be given to the fourth-year class. This will include the detection and localization of foreign bodies, fractures, dislocations, and bone and joint lesions. Renal, ureteral and vesical calculi will be studied, and the differential points between these and calcified bodies outside the genito-urinary tract will be pointed out. The use of argyrol in the diagnosis of kidney lesions will be explained. Lesions of the skull and teeth, and infections of the accessory sinuses will be considered. Respiratory lesions, such as abscesses and tumors of the lungs and mediastinum are to be discussed, especial attention being devoted to the early diagnosis of tuberculosis.

Gastro-intestinal lesions, such as strictures and diverticula of the œsophagus, and growths, kinks and adhesions of the colon will be taken up. Particular emphasis will be given to the motor phenomena of the stomach, and to the diagnosis of gastro-duodenal lesions, such as carcinoma, ulcers of the stomach and duodenum, and gall-bladder infection, with or without calculi.

Finally, the course will include lectures on radiotherapy, covering the treatment of refractory skin conditions, and malignant growths of deep structures, describing the scientific dosage, with or without filters.

SUMMARY.

	<i>Fourth Year.</i>
Lectures	9 hours.

HYGIENE.

JOHN C. TORREY, Ph.D., *Lecturer.*

Instruction in many of the branches of hygiene and preventive medicine is a prominent feature in some of the courses pursued in the several departments of Chemistry, Bacteriology, Pathology, and Medicine.

The topics thus covered include the chemical and bacterial analysis of air, water, milk; the preservation and adulteration of foods; and the general diagnosis, control, and prevention of infectious diseases.

The more distinctive branches of hygiene and preventive medicine are presented in a course of lectures to third and fourth year students. Some of the topics thus considered are water analysis and supply, diet, meat and milk inspection, relation of disease in animals to man, hygiene of factories, occupation diseases, ventilation, morbidity and mortality statistics, prophylaxis and hygiene of transmissible diseases and tropical hygiene, personal hygiene, parasitology, municipal sanitation and the functions of the health officer.

SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures	10 hours.	12 hours.

Text-books.—Bergey, *Principles of Hygiene*; Harrington-Richardson, *Practical Hygiene*; Notter, *Theory and Practice of Hygiene*; Egbert, *Hygiene and Sanitation*; Rosenau, *Preventive Medicine and Hygiene*; Chapin, *Sources and Modes of Infection*.

MEDICAL JURISPRUDENCE.

This subject is covered in the regular course of study by several departments and by special lectures. The responsibilities of the physician towards the insane and their relatives and the general public, and the criminal aspects of the mentally defective, are discussed by Professor Hoch. In the course on Obstetrics Professor Edgar takes up the moral and legal side of rape, feigned and unconscious pregnancy, what constitutes a "live birth," feigned or unconscious delivery, injury to the foetus during precipitate labor, post-mortem delivery and the diagnosis of recent delivery. The medico-legal aspects of Toxicology are fully covered during the course in Pharmacology by Professor Hatcher. Dr. Schultze, in addition to his regular course in Gross Pathology, demonstrates medico-legal autopsies and cases of homicide, suicide, accident and abortion.

SCHEDULE OF COURSES*

FIRST YEAR—SESSION OF 1914-1915—FIRST TERM

September 30th to December 19th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	A N A T O M Y					
10						
11						
1	Histology and Embryology	Chem. Lect.	Histology and Embryology	Chem. Lect.	Histology and Embryology	
2		Morphology				
3		<i>e</i>				
4	Advanced Chemistry†					
5	Laboratory					

†The type of instruction varies with the individual student, depending on the amount and character of advanced chemistry offered for admission.

Additional ELECTIVE courses may be offered in Department of Anatomy Thurs. and Sat. P. M.

FIRST YEAR—SESSION OF 1914-1915—SECOND TERM

January 4th to March 13th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Histology and Embryology	Anat.		Chem. Rec.	Histology and Embryology		
10				Anatomy			
11							
1	Anatomy	Chem. Lect.	Anatomy	Chem. Lect.	Anatomy		
2							
3		Chem. Lab.					Chem. Lab.
4							
4:30							

Additional ELECTIVE courses may be offered in Department of Anatomy or Chemistry, 4-6 P. M. and Saturday 1-6 P. M.

Additional ELECTIVE courses may be offered in Department of Anatomy or Chemistry, 4-6 P. M. and Saturday 1-6 P. M.

FIRST YEAR—SESSION 1914-1915—THIRD TERM

March 15th to May 29th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Physiol. Lect.	Chem. Lect.	Physiol. Lect.	Chem. Lect.	Physiol. Lect.	Chem. Lect.
10	Physiol. Lab.	Chem. Lab.	Physiol. Lab.	Chem. Lab.	Physiol. Lab.	Chem. Lab.
11						
12						
2	Physiol. Rec.	Neuro-Histology	Neuro-Histology	Neuro-Histology	Neuro-Histology	
3						
4	Chem. Rec.		Chem. Rec.	Physiol. Rec.	Physiol. Lect.	

*Abbreviations.—Lect., lectures; Lab., laboratory; Rec., recitations; Sec., section (the class being assigned to two or more divisions for certain exercises); B. H., Bellevue Hospital (Second Division); B. H. 4., Bellevue Hospital (Fourth Division); C. D., College Dispensary; G. M., General Memorial Hospital; H. S., Hudson Street Hospital; Man. Mat., Manhattan Maternity Hospital; N. L., Neurological Institute; N. Y., New York Hospital; R. & C., Hospital for the Ruptured and Crippled; W. L., Ward's Island, Manhattan State Hospital.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

SECOND YEAR—SESSION OF 1914-1915—FIRST TERM

September 30th to December 19th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	P H Y S I O L O G Y L E C T U R E					
10	Physiol.* Lab.	Anatomy	Physiol.* Lab.	Anatomy	Physiol.* Lab.	Anatomy
11						
12						
2	Physiol. R.	Obstet. R.	Physiol. R.	Medicine R.	Physiol. Seminary	Physiol. R.
3	Applied Anatomy	Pharmacology	Applied Anatomy	Pharmacology	Applied Anatomy	
4						

*Ithaca students elect either Anatomy or Physiology.

SECOND YEAR—SESSION OF 1914-1915—SECOND TERM

January 4th to March 13th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Medicine Rec.	Clin. Physiol. Sec. B | Sec. A	Surgery Rec.	Clin. Physiol. Lect.	Surgery Rec.	Surgery Rec.
10	Pharmacol. Lab.	Clin. Physiol. Sec. A | Sec. B	Pharmacol. Lab.	Clin. Physiol. Sec. A | Sec. B	Pharmacol. Lab.	Pharmacol. Rec.
11		Phys. Diag. C. D. Sec. A		Clin. Physiol.* Sec. B | Sec. A		Phys. Diag. C. D. Sec. A
12		Phys. Diag. C. D. Sec. B		Phys. Diag. C. D. Sec. B		Phys. Diag. C. D. Sec. B
2	Surg. Diag. A | Surg. Diag. B	Obstet. Rec.	Surg. Diag. A | Surg. Diag. B	Medicine Rec.	Surg. Diag. A | Surg. Diag. B	
3		Pharmacol. Lect.	Operative Surgery	Operative Surgery	Pharmacol. Lect.	
4					Clin. Physiol. Lect.	

NOTE.—Vertical divisions in daily columns indicate that such courses run a half term only. Courses change Feb. 8th, 6 P. M. *11 A. M. to 12 M. only.

SECOND YEAR—SESSION OF 1914-1915—THIRD TERM

March 15th to May 29th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Pathological Anat.	Pathology	Pharmacol. Lect.	Pathology	Pathological Anat.	Pathology	
10			Obstet. Rec.				
11	Physical Diagnosis		Physical Diagnosis				Physical Diagnosis
12							
1		Surg. Diag.*		Surg. Diag.*		Surg. Diag.*	
2	B A C T E R I O L O G Y						
3							
4							

*In this course the class will be divided into three sections, each to report on one day a week only.

*In this course the class will be divided into three sections, each to report on one day a week only.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 65.

THIRD YEAR—SESSION OF 1914-1915—FIRST TERM

September 30th to December 19th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Medicine Rec.	Surg., Sec. A N. Y. Obstet., Sec. B B. H.	Surgery Lect. Prof. Gibson	Surg., Sec. B N. Y. Obstet., Sec. A B. H.	Pathological Anatomy Lab.	Medicine Rec.
10						Urology Lect. Prof. Keyes
11	Pathology Lab.		Pathology Lab.		Pathology Lab.	Physical Diag. C. D. Sec. A | Sec. B
12		Phys. Diag., Sec. A, C. D. Obstet. Sec. B College		Obstet., Sec. A College Phys. Diag. Sec. B, C. D.		Physical Diag. C. D. Sec. B | Sec. A

2	Urology Sec. A Surgery Sec. B C. D.*	Surgery Lect. Prof. Stimson	Surg. Clinic Prof. Stimson	Pediatrics Clinic College Prof. Winters	Surg. Lect. Prof. Stimson	Urology Sec. A, C. D. Appl. Pharm. B. H.* Sec. B
3	Urology Sec. A Neurology Sec. B, C. D.*	Appl. Pharm. B. H.* Sec. A	Urology Clinic B. H. Prof. Keyes	Surg. Clinic B. H. Prof. Stimson	Med. Clinic B. H., Prof. Thompson	Urology Sec. A, C. D. Neurology Sec. B, N. I.*
4	Appl. Pharm. Lect. Prof. Coleman	Obstet. Clinic Man. Mat. Prof. Edgar	Obstet. Lect. Prof. Edgar	Med. Lect. Prof. Thompson	Neurol. Clinic College Prof. Dana	Neurology Sect. N. I.*
5	Med. Lect. Prof. Thompson					

*Sections change Nov. 9th, 6 P. M.

THIRD YEAR—SESSION OF 1914-1915—SECOND TERM

January 4th to March 13th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
9	Pathology Lab.	Pathology Lab.	Pathology Lab.	Medicine Rec.	Pathology Lab.			
10				Hygiene		Medicine Rec.		
11	Pathological Anatomy Lab.	CLINICAL PATHOLOGY						
12								

2	Appl. Pharm. Lect. Prof. Coleman	Appl. Pharm. B. H. Sec. B | Sec. A	Surg. Clinic College Prof. Gibson	Pediatrics Clinic College Prof. Winters		Appl. Pharm. B. H. Sec. A | Sec. B
3	Appl. Pharm. B. H., Sec. A		Urology Clinic, B. H. Prof. Keyes		Med. Clinic B. H., Prof. Thompson	
4		Obstet. Clinic Man. Mat. Prof. Edgar	Obstet. Lect. Prof. Edgar	Surgery N. Y.	Neurol. Clinic College Prof. Dana	
5						

NOTE.—Vertical divisions in daily columns indicate that such courses run a half term only. Courses change Feb. 8th, 6 P. M.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 65.

THIRD YEAR—SESSION OF 1914-1915—THIRD TERM

March 15th to May 29th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.
10						
11						
12		Surg. Rec. N. Y.			Surg. Rec.	
1.30	Surg. Rec. N. Y.					
2	Medicine* Surgery N. Y.	Appl. Pharm. B. H. Sec. B.	Medicine* Surgery N. Y.	Medicine* Surgery N. Y.	Appl. Pharm. Lect. Prof. Coleman	Medicine* Surgery N. Y.
3		Med. Pathol.*			Medicine Clinic, B. H. Prof. Thompson	
4		Obstet. Clinic			Neurol. Clinic Prof. Dana	
5					Therap. L. Prof. Meara	
*Sec. A, Medicine, including medical pathology, March 15th to April 21st; Surgery, April 22nd to May 29th. Assignment of Sec. B is the reverse.						

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 65.

FOURTH YEAR—SESSION OF 1914-1915—FIRST TERM

September 30th to December 19th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9		*Medical Ward, B. H.	Surgery Lect. Prof. Gibson	*Medical Ward, B. H.		*Medical Ward, B. H. Medicine B. H. 4
10	*Medical Ward, B. H. Surgery H. S.	*Medical Ward, B. H. Patholog. Anatomy, Morgue	*Medical Ward, B. H. Med. Clinic *Medical Ward, B. H. Prof. Thompson	*Medical Ward, B. H. Patholog. Anatomy, Morgue	*Medical Ward, B. H. Surgery H. S.	*Medical Ward, B. H. Medicine B. H. 4
11						
1	*Medical Ward, B. H. Pediatrics C. D.	*Medical Ward, B. H. Pediatrics C. D.	*Medical Ward, B. H. Laryngology C. D.	*Medical Ward, B. H. Otology C. D.	*Medical Ward, B. H. Laryngology C. D.	*Medical Ward, B. H. Laryngology C. D.
2	*Medical Ward, B. H. Otology, C. D.	Surgery Lect. Prof. Stimson	Surgery Clinic Prof. Stimson	Pediatrics Clinic Prof. Winters	Surgery Lect. Prof. Stimson	Dermatology† Clinic Prof. Elliott
3	*Medical Ward, B. H. Gynecology Clinic, B. H. Prof. Polk	*Medical Ward, B. H.	*Medical Ward, B. H. Surg. Clinic B. H. Profs. Hartwell, Woolsey, Rogers	Surgery Clinic, B. H. Prof. Stimson	Med. Ward, B. H. Med. Clinic B. H. Prof. Thompson	*Medical† Ward, B. H. Otology C. D.†
4				*Medical Ward, B. H.	*Medical Ward, B. H.	*Medical† Ward, B. H.
5	Surgery Rec.	Surgery Rec.	*Medical Ward, B. H.	Surgery Rec.	Therapeutics Lect. Prof. Meara	

*Sept. 30th-Nov. 7th, Section A takes medical ward B. H. at times indicated.

Section B takes the alternate exercises.

Nov. 9th-Dec. 19th, sections reverse.

†Excused November 7th and 14th for Pediatrics at Willard Parker Hospital.

FOURTH YEAR—SESSION OF 1914-1915—SECOND TERM

January 4th to March 27th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9		Therap Rec.	*Surgery B. H. Orthopedics R. & C.			*Surgery B. H. Gynecology B. H.
10	*Surgery B. H. Orthopedics R. & C.	*Surgery B. H. Gynecology B. H.	Med. Clinic Prof. Thompson	*Surgery B. H. Gynecology B. H.	*Surgery B. H. Orthopedics R. & C.	
11						Pathological Anatomy, Morgue
12						
1		Hygiene Lect. Prof. Torrey	Orthopedic Lect. Prof. Wallace			
2		*Surgery B. H. Neurology B. H. Pediatrics N. Y.	Surgery Clinic Prof. Gibson	Pediatrics Clinic Prof. Winters	*Surgery B. H. Neurology B. H. Pediatrics N. Y.	Dermatology† Clinic Prof. Elliot
3	*Surgery B. H. Neurology B. H. Pediatrics N. Y.		*Surgery B. H. Neurology B. H. Pediatrics N. Y.	*Surgery B. H. Neurology B. H. Pediatrics N. Y.	Neurology Clinic Prof. Dana	*Surgery† B. H. Neurology† B. H. Pediatrics† N. Y.
4						
5		Hygiene Lect. Prof. Torrey			Therapeutics Lect. Prof. Meara	

*Jan. 4th-Feb. 13th, Sec. A takes Surgery; Sec. B, Orthopedics and Gynecology. Sec. B1 takes Neurology Jan. 4th-23d; Pediatrics, Jan. 25th-Feb. 13th; B2, Pediatrics, Jan. 4th-23d; Neurology, Jan. 25th-Feb. 13th.

Feb. 15th-Mar. 27th, Secs. reverse, Sec. A1 taking Neurology Feb. 15th-Mar. 6th, Pediatrics, Mar. 8th-27th; Sec. A2, Pediatrics, Feb. 15th-Mar. 6th, Neurology, Mar. 8th-27th.

†Excused for Pediatrics at Willard Parker Hospital. Jan. 9th and 16th.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 65.

FOURTH YEAR—SESSION OF 1914-1915—THIRD TERM

March 29th to May 29th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9		Therapeutics Rec.		Surgery Special Lect.	Surgery N. Y.	
10						
11	*Medicine C. D. Cancer G. M.	*Medicine C. D. Medicine B. H. 4	*Medicine C. D. Cancer G. M.	*Medicine C. D. Medicine B. H. 4	*Medicine C. D. Surgery N. Y.	Psycho- pathology W. I.
12						
2	Orthopedics C. D. Neurology B. H.	Ophthalmology C. D.	Surgery Clinic Prof. Gibson	Pediatrics Clinic Prof. Winters	Ophthalmology C. D.	Dermatology Clinic Prof. Elliot
3		Radiology Lect. Prof. Cole	Surgery Clinic, B. H. Prof. Rogers	Chemical Pathology Lect. Prof. Benedict	Med. Clinic Prof. Thompson	Orthopedics C. D.
4	Gynecology Clinic Prof. Polk	Cancer Lect.		Cancer Lect.	Neurology Clinic Prof. Dana	
4.30			Psycho- pathology Lect. Prof. Hoch			
5					Therapeutics Lect. Prof. Meara	

*March 29th-April 28th, Sec. A takes Medicine, C. D., and Orthopedics; Sec. B takes Medicine B. H., Surgery N. Y., Neurology B. H., and Cancer, G. M., April 29th-May 29th, sections reverse.

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

EXAMINATIONS AND ADVANCEMENT IN COURSE.

I. Advancement.—Students are advanced in course from one year to the next upon recommendation by heads of departments after examination in the work of that year, but examinations in major or minor subjects may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examinations in question. There is, however, no unnecessary repetition of subjects taught from year to year.

II. Examinations.—Examinations for advancement in course, graduation and admission to advanced standing are held at the close of the year, except that in each course extending through a part of the year only, the examination may be held at the close of the course.

A grade of 75 per cent. is required to pass; a student failing to pass is either conditioned or dropped (see subjects of examination, etc., pages 72-73).

A conditioned student may be re-examined at the discretion of the examiner.

A student who fails to pass all of his conditions shall not be allowed to register in the succeeding year of the curriculum, but shall be required to repeat the year.

A dropped student shall not be re-examined.

A student twice dropped from a given year of the curriculum shall not again be registered in this College.

III. Record of Grades.—At the completion of a final examination at the end of a course the grades of each student are to be promptly compiled and submitted by the examiner to the College office for record by the Secretary, and grades once recorded are not subject to change except in accordance with the rules governing re-examination (See **II.**). Announcement of grades is made only at the end of the session.

IV. Final Examinations.—Annual examinations are held at the end of a course, or coincident group of courses, in the hours allotted to said courses, or during the last week of the session, at the discretion of the head of the department, who will give notice of the date of examination through the office of the Secretary. All such final examinations are conducted under the direction of the head of the Department.

V. Major and Minor Courses.—Major courses are those in which a student completes his work in a given department or subject. Minor courses comprise the shorter laboratory and recitation courses.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Subjects of Examination for Completion of the First Year.

Major Subjects—Anatomy.

Physiology.

Organic Chemistry (including laboratory work).

Histology and Embryology.

Minor Subjects—Neuro-Anatomy.

Physiological Chemistry.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

NOTE.—All conditions must be successfully passed before entrance into the next succeeding year will be allowed.

Subjects of Examination for Completion of the Second Year.

Major Subjects—Physiology.

Materia Medica and Pharmacology.

Minor Subjects—Medicine.

Surgery.

Obstetrics.

Bacteriology.

Anatomy.

Pathology.

Nutrition.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

(See note above.)

Subjects of Examination for Completion of the Third Year.

Major Subjects—Applied Pharmacology.

Pathology.

Obstetrics.

Minor Subjects—Medicine.

Surgery.

Clinical Pathology.

Pediatrics.

Neurology.

Pathological Anatomy.

Urology.

Conditions allowed: 1 Major and 1 Minor; or 2 Minors.

(See Note above.)

Subjects of Examination for Completion of the Fourth Year and Graduation.

Major Subjects—Medicine.

Surgery.

Therapeutics.

Gynæcology.

EXAMINATIONS AND ADVANCEMENT IN COURSE.

Minor Subjects—Hygiene.

Ophthalmology.
Neurology.
Laryngology and Rhinology.
Orthopædics.
Pediatrics.
Psycho-pathology.
Otology.
Dermatology.

Conditions allowed:—

If any student fails to pass in not more than one major, or in two minor subjects, a re-examination in those subjects may be allowed, and if the candidate is then successful the degree may be conferred.

If the candidate fails to pass in any subject at this second examination, the work of the fourth year must be repeated.

The examination in the major subjects are allowed two hours, and in the minor subjects one hour each.

REQUIREMENTS FOR GRADUATION.

1. Candidates for the degree of doctor of medicine must have studied medicine for four full years in an accredited medical college, and the fourth year at least must have been spent in the Cornell University Medical College.

2. Candidates must present satisfactory evidence of good moral character and of being not less than twenty-one years of age.

3. Candidates must file with the Secretary of the Faculty satisfactory evidence of having complied with the entrance requirements (see page 20), together with the requisite legal medical student certificate.

NOTE.—This certificate is issued by the Department of Education of the State of New York on presentation of a diploma from a recognized College or University or properly attested certificate showing that such a diploma has been granted, together with a fee of twenty-five cents. If the student so requests, the Secretary of the Faculty may forward such diploma or certificate to the Department of Education of the State of New York with a request for the legal medical student certificate.

4. Candidates must have dissected at least one lateral half of the cadaver (see page 31). They must, further, have taken the regular course of two weeks in practical obstetrics, and a certificate covering this course must be filed at the Secretary's office before registration for the final examinations, which begin about the last week of May.

5. In addition to the yearly examinations above specified for advancement in course, candidates must pass during the fourth year examinations in medicine, surgery, therapeutics, gynæcology, and the minor subjects which are specified on page 73.

6. Candidates rejected at the final examination will not be re-examined until after having repeated the fourth year of study.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Before being readmitted to the fourth year the candidate may be required to pass a satisfactory examination in anatomy, physiology, chemistry, and materia medica, the major subjects of the preceding years.

7. The degree will not be conferred upon any candidate who absents himself from the public Commencement without the special permission of the Faculty.

8. The Faculty reserves the right to terminate the connection of any student with the institution *at any time* on the ground of what they may deem moral or mental unfitness for the profession, or improper conduct while connected with the College.

DIPLOMAS OF LICENTATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Graduates of the Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges, which are recognized by the examining board, have been complied with.

Further information may be obtained from the Secretary of the Board (Mr. F. G. Hallet) at the Examination Hall, Queen's Square, Bloomsbury, London, W. C.

Prizes.

I. For general efficiency.

In commemoration of John Metcalfe Polk, an Instructor in this College, who was graduated from the Medical Department of Cornell University on June 7, 1899, and died on March 29, 1904, an annual prize of \$500 will be presented at each Commencement to the members of the Graduating Class who have pursued the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

To the student having the highest standing.....	\$300
To the student having the second highest standing.....	125
To the student having the third highest standing.....	75

II. For efficiency in Otology.

Two prizes, the first of \$50, the second of \$25, are offered by Professor Whiting to the two students of the graduating class to be designated by him, who make the best records in the practical and theoretical work in otology.

Fellowships.

A. Fellowships in Medicine.

Through the generosity of a friend of the College four annual Fellowships in Clinical Medicine, known as the Charles L. Sheldon Fellowships, have been established which provide for research in practical clinical work to be conducted by recent graduates in medicine under the direction of the Professor of Medicine.

EXAMINATIONS AND ADVANCEMENT IN COURSE.

These fellowships are:

I. An annual fellowship of \$1,000 to be awarded for clinical and experimental research in medicine to be conducted in the wards and laboratories of the Cornell Division of the New York Hospital. (Details may be obtained on application to the Professor of Medicine.)

II. An annual fellowship of \$250, and two of \$200 each, to be awarded for clinical and experimental research in the Medical Out-Patient Clinic of the College.

Fellows: L. A. Wing, M.D., A. L. Holland, M.D., and V. C. Baker, M.D.

These fellowships are awarded for the purpose of stimulating interest in the Dispensary classes and in the conduct of investigations in practical medical subjects. The holder is given charge of a dispensary class in General Medicine throughout the year, and facilities are furnished for research in some definite medical subject. These fellowships have been awarded in the past for research in certain occupational diseases, as lead poisoning, and in the X-Ray in diagnosis of abdominal diseases, the serum treatment of exophthalmic goitre, etc.

B. Fellowship in Pathology.

A fellowship with an annual income of \$250 has been established in the Department of Experimental Pathology, and will be awarded to a graduate in Medicine who desires to pursue laboratory investigation in some field of Pathology.

Hospital Appointments.

The students and graduates of the Cornell University Medical College are expected to compete for positions on the resident staff of New York, Bellevue and the other hospitals of the city.

Some of these hospitals are: The City, Harlem, Gouverneur, Roosevelt, Fordham, St. Luke's, St. Vincent's, St. Francis', Mount Sinai, German, Hudson Street, New York Eye and Ear Infirmary, and the many hospitals in Brooklyn, Jersey City, Newark, Paterson, etc.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

A record of the hospital appointments received by the class of 1913 is shown in the list of Graduates on page 103.

CORNELL UNIVERSITY MEDICAL COLLEGE

COURSES FOR GRADUATES

For some years special courses have been offered in several of the departments, and they have been, from time to time, pursued by graduates in medicine, teachers and advanced students and research workers in the medical sciences. For the benefit of such applicants these courses have been compiled, and are listed below under the several departments by which they are offered. For a list of the teaching staff the reader is referred to the detailed statement of the several departments contained in pages 29 to 64 of this announcement.

The courses offered below with the exceptions indicated are minor courses continuing six to eight weeks. Several departments are equipped to offer co-ordinated work extending over longer periods, and such courses can be arranged for the student by consultation with the head of the department.

In general it is recommended that students applying for admission to graduate courses so far as possible arrange to take consecutive work for a period of at least one College session. Such courses will be under the immediate supervision of an instructor from the department in which the greater portion of the student's work is performed.

The faculty reserve the right to limit the number of applicants received and to alter or withdraw courses at any time.

ADMISSION.

Graduates in Medicine, Arts or Science, from approved colleges, who desire to pursue courses not leading to a degree, are admitted to registration as graduate students, after approval by the head of the department. Such courses do not count in any way as a part of the four years' course required of candidates for the degree of doctor in medicine. All students or other workers pursuing courses indicated below are required to register at the office of the Secretary.

FEES.

Graduate students are admitted to any of the courses of instruction offered on the payment of a registration fee of five dollars and the tuition fee assigned to the course (see below). Those who have been previously registered as students in the Cornell University Medical College are not required to pay the registration fee.

In the courses outlined below, those marked with an * may be begun at any time during the session.

ANATOMY.

1. **Embryology.** September 30th to March 13th. Fee \$25. Details on page 29.

2.* **Histological Technic.** Laboratory at least three hours daily and conferences with instructors. Fee \$25.

3 and 4. **General Histology, Microscopical Anatomy.** September 30th to March 13th. Details on page 29. Fee \$50.

COURSES FOR GRADUATES

5.* **Dissection.** See Courses I-V, page 31. Fee \$25 per term (ten weeks); or for the entire dissection, \$50.

6. **Neuro-Anatomy and Neuro-Histology.** March 15th to May 29th. Details on pages 31 and 32. Fee \$25.

7.* **Anatomical Research.** Subject to special arrangement with head of department (see page 33).

PHYSIOLOGY.

1. **General Physiology.** Begins with Term III in March and continues in Term I of the following session. Details on page 34. Fee \$50.

2.* **Physiological Research.** Subject to special arrangement with head of department.

CHEMISTRY.

1.* **Advanced Physical and Physiological Chemistry.** Duration 10 weeks. Fee \$25.

2.* **Chemical Pathology.** Duration 10 weeks. Fee \$25.

3.* **Detection and Estimation of Poisons.** Duration 10 weeks. Fee \$25.

4.* **Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.**

NOTE.—Courses in this department are subject to special arrangement with head of department. Special students in this department must present satisfactory evidence of preliminary training in inorganic chemistry with laboratory work as outlined on page 20.

PHARMACOLOGY AND MATERIA MEDICA.

1.* **Laboratory Pharmacology,** under supervision and including conferences with instructor. Fee \$25.

2.* **Research Work in Pharmacology.**

GENERAL THERAPEUTICS.

1. **Case Study,** includes investigation of therapeutic measures in selected groups of cases.

Course begins January 4th and continues for ten weeks. Fee \$50.

MEDICINE.

1.* **General Medical Diagnosis.** Study of ward cases. Fee \$25.

2. **General Medical Diagnosis, Ambulatory Cases.** Offered in first trimester only, October to December. Fee \$25.

CORNELL UNIVERSITY MEDICAL COLLEGE.

CLINICAL PATHOLOGY.

1.‡ **General Clinical Microscopy.** Introductory to examination and analysis of urine, gastric contents, sputum, blood transudates, and including clinical bacteriology. Two-hour demonstrations thrice weekly for four weeks, 24 hours. Fee \$25.

2.‡ **Clinical Chemistry,** advanced chemical examinations of urine and faeces. Two-hour demonstrations thrice weekly for four weeks, 24 hours. Fee \$25.

3.‡ **Clinical Bacteriology.** Two-hour demonstrations three or four times weekly for six to eight weeks, 48 hours. Fee \$50.

4.‡ **Serum Diagnosis,** including the Wasserman and Neguchi reactions. Twenty-four demonstrations, eight to ten weeks; 48 hours. Fee \$50.

5.‡ **Exudates and Transudates,** including cerebrospinal fluid. Methods of examination. Two-hour demonstrations thrice weekly for six weeks; 24 hours. Fee \$25.

6.‡ **Vaccine and Tubercular Diagnosis and Therapy.** Two-hour demonstrations, three or four times weekly for eight to ten weeks. Fee \$50.

7.‡ Courses 3 and 6, if combined, are given in 72 hours. Fee \$75.

‡Courses begin October 1st and May 1st.

SURGERY.

1. **General Surgery.** Offered only during those months when the wards of Bellevue Hospital, Second Surgical Division, are unoccupied by undergraduate students.

The course consists of morning "rounds" with the visiting and assistant staff, and an afternoon operative clinic. Daily 9-11 A.M. and 2:30-6 P.M., March 15th to May 29th.

This course is offered without fee to graduates of this medical school.

2.* **Operative Surgery on the Cadaver.** (Offered only to graduates in medicine.)

Course of	5 operations	.....	\$20.00
" "	10 "	.....	30.00
" "	20 "	.....	40.00
" "	40 "	.....	60.00
" "	80 "	.....	90.00
" "	100 "	.....	100.00

3. **Operative Surgery.** Regular undergraduate course, in second term only, begins January 5th. Fee \$25.

OBSTETRICS.

1.* **Manikin Instruction.** Obstetric operations and Diagnosis; 10 lessons. Fee \$20.

PATHOLOGY.

1.* **Pathological Anatomy and Autopsy Technics.** First trimester (see page 53).

2. **Neuro-pathology.** Offered only in February to March (see page 53).

COURSES FOR GRADUATES

NEUROLOGY.

1. **Neuro-anatomy and Histology.** See Department of Anatomy (pages 31 and 32). The student must present satisfactory evidence of an adequate knowledge of general histology. Fee \$25.

2. **Neuro-pathology.** See Department of Pathology, page 53. Fee \$25.

3.* **Clinical Neurology.** Includes study of ambulatory and ward cases, with medical and electrical therapeutics. Two hours daily for two months. Should be preceded by Courses 1 and 2 or their equivalent. Fee \$50.

4.* **Psycho-therapeutics.** Twice weekly for eight weeks. Should be preceded or taken in conjunction with Course 3. Fee \$25.

DERMATOLOGY.

1.* **Clinical Dermatology.** Ambulatory cases. Thrice weekly for six weeks, 2-3 P.M. Fee \$25.

2.* **Histo-pathology of the Skin.** Thrice weekly for eight weeks. Fee \$25 each to classes of three or more; minimum fee for class, \$75.

LARYNGOLOGY AND RHINOLOGY.

1.* **Clinical Laryngology.** Course of 15 lessons on diagnosis and therapeutics, including operative treatment. Fee \$25.

OPHTHALMOLOGY.

1.* **Ophthalmoscopy.** 20 hours. Fee \$25.

2.* **External Diseases of the Eye.** 20 hours. Fee \$25.

3.* **Diseases of the Eye Muscles.** 15 hours. Fee \$20.

4.* **Refraction and Retinoscopy.** 20 hours. Fee \$25.

5.* **Simulation of Amblyopia and Amaurosis.** 5 hours. Fee \$20.

6.* **Clinical Ophthalmology.** Daily 2-3 P.M. Fee per month, \$25.

7.* **Ophthalmic Operations on the Cadaver.** (This course is given in coöperation with the Department of Anatomy). 20 hours. Fee \$50.

8.* **Pathological Histology of the Eye.** (This course is given in coöperation with the Department of Pathology, and must be applied for in advance). 20 hours. Fee \$25.

9.* **Bacteriology of the Eye.** (This course is given in coöperation with the Department of Pathology, and must be applied for in advance). 15 hours. Fee \$20.

HYGIENE.

1. **Bacteriological Examination of Water, Milk and Air from a Sanitary Standpoint.** Laboratory course. Fee \$25.

2. **Chemical Examination of Water, Milk and Air from a Sanitary Standpoint.** Laboratory course. Fee \$25 to \$50.

3.* **Investigation of Special Groups of Bacteria,** with various laboratory methods and procedures employed in public health and sanitary work. Laboratory course. Fee \$25 to \$50.

CORNELL UNIVERSITY MEDICAL COLLEGE

THE GRADUATE SCHOOL.

By coöperation with the Graduate School of Cornell University the Medical College is enabled to offer in its scientific departments courses leading to an advanced degree. Students who register in the medical college for work leading to the degree of Doctor of Philosophy are in all cases subject to the rules and regulations of the Graduate School of Cornell University as well as to those of the Medical Faculty in New York City.

ADMISSION.

The Graduate School has exclusive control of all graduate work done in Cornell University. Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Civil Engineering, the Sibley College of Mechanical Engineering, and the New York State College of Agriculture,—or of other institutions in which the requirements for the first degree are substantially equivalent,—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

Seniors in the colleges of Cornell University who have completed the work required for the bachelor's degree may, under certain conditions to be ascertained from the deans of their respective colleges, be admitted to the Graduate School.

In order to avoid delays at the beginning of the academic year, those who desire to enter the Graduate Courses in the Medical Sciences are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean, Cornell University Medical College, New York City.

Before admission it will be necessary to present evidence of the degree already received, *i. e.*, either the diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the Registrar or Dean that the degree has been conferred. A blank form of certificate will be furnished on request.

STUDIES.

The purpose of the graduate courses is to provide the student with the method and discipline of original research, to the ultimate end that he may contribute to the advancement of knowledge. In furnishing this opportunity for independent study and investigation, the Medical College seeks to make the conditions such as will enable the student to devote himself wholly to his chosen field. Unhampered by the restrictions that necessarily obtain in undergraduate work, he will come into freedom of association with older scholars, who will seek to make his work profitable to him by giving such aid and

THE GRADUATE SCHOOL.

direction as he may need. Inasmuch as subjects differ greatly, the requirements for all subjects cannot be stated in terms at once specific and uniform. In some departments of knowledge, original research may begin with the student's entrance into the School; in other subjects much preliminary work is necessary to fit the student for profitable research.

The branch of knowledge to which the student intends to devote the larger part of his time is termed his major subject. The other fields of study selected, which will be necessarily more restricted in their scope, and which should in general be selected with reference to their direct bearing upon the major subject, are termed the minor subjects. Candidates for the doctor's degree are required to select a major subject and two minor subjects; for the master's degree, a major subject and one minor subject are required. A statement of the major and minor subjects, approved by the professors with whom the work is taken, must be presented to the Dean not later than two weeks after admission to the Graduate School. The studies selected by a graduate student, who is not a candidate for an advanced degree, must be approved by some member of the faculty of the Graduate School, who acts as the student's adviser.

SPECIAL COMMITTEES.

The work of each candidate for an advanced degree is in charge of a committee consisting of two or more professors under whom his major and minor subjects are pursued, the professor of his major subject being chairman. The student is expected to confer freely with the members of his special committee, not only in connection with individual courses of study but also in regard to the general plan of his work.

THE DEGREE OF DOCTOR OF PHILOSOPHY.

The degree of Doctor of Philosophy is granted to a student who, after completing not less than three years of resident graduate work, presents a satisfactory thesis and passes an examination.

The degree of doctor is intended to represent not a specified amount of work covering a specified time, but long study and high attainment in a special field, proved in the first place by the presentation of a thesis which displays the power of independent investigation, and in the second place by passing corresponding examinations upon the ground covered by the major and minor subjects chosen at the beginning of the candidacy. The standard for the doctor's degree is determined by the attainment to be expected of an excellent student, who begins his work with adequate preparation, and devotes his whole time for three years to his major and minor subjects and his thesis.

Examinations for the doctor's degree will occur during the second week before Commencement, unless another date is set by the Dean. These examinations, which may be either oral or written, or both, at the option of the examining committee, are open to all members of the faculty. Candi-

CORNELL UNIVERSITY MEDICAL COLLEGE.

dates who will have completed the other requirements for the degree in June, must apply to the Dean not later than April 15th for examination.

The thesis for the doctor's degree must be of such character as shall demonstrate the candidate's ability to do original work, and must be satisfactory in style and composition. A statement of the general subject of the thesis, with the written approval of the chairman of the special committee in charge of the candidate's work, must be furnished the Dean not later than December 1st of the academic year in which the degree is to be taken. The completed thesis, approved by the chairman of the special committee, must be presented to the Dean at least five days before the examination for the degree. This copy may be returned for use at the examination or for binding.

Each candidate for the doctor's degree must deposit one hundred printed copies of his thesis with the Librarian of the University. The title page must include the statement that the thesis is presented to the Faculty of the Graduate School of Cornell University for the degree of Doctor of Philosophy. The author's name must be given in full, and, if the thesis is a reprint, the place and date of the original publication must be given. If the printing of the thesis is deferred until after Commencement the candidate must deposit a bound typewritten copy with the Dean not later than the Friday preceding Commencement. The size of the page in case of typewritten theses should be 8 x 10½ inches. This copy of the thesis becomes the permanent property of the Library. The diploma for the degree will be withheld until the required number of printed copies has been deposited.

After June, 1915, the following requirements for the printing of theses will be in force:

Each candidate for the Doctor's degree shall be required to deposit one hundred printed copies of his thesis with the dean for the purposes of the university library. In exceptional cases this requirement may be met by depositing with the Dean for the purposes of the university library a bound typewritten copy of the thesis and one hundred printed copies of such a summary or such portion of the thesis as may be recommended by the chairman of the special committee and approved by the General Committee.

When all other requirements for the doctorate have been fulfilled, the degree may be conferred before the printed copies of the thesis have been received by the Dean, provided that the candidate present, at least five days before the degree is to be conferred, the bound typewritten copy of the thesis, together with a signed statement that publication will take place within a definite period, which period shall not exceed two years; and provided further that he deposit at the same time with the Treasurer of the University the sum of seventy-five dollars. The Treasurer is authorized to accept in his discretion as a guarantee a regularly executed bond instead of the deposit of money. The deposit will be returned if the prescribed number of printed copies of the thesis are furnished within the stated time. But in case the printed copies are not delivered within such time, the University reserves the right to use the deposit to defray the expense of printing the thesis or such portions of it as the Faculty may direct.

THE GRADUATE SCHOOL.

Candidates for the doctor's degree will ordinarily be expected to have a working knowledge of French and German before beginning graduate work; and in all cases they must, before beginning their second year of residence, show to the satisfaction of their special committees that they possess a reading knowledge of those languages. If the subjects chosen by the candidate are of such character as to make it desirable that he should be familiar with some foreign language other than French or German, the special committee may, with the consent of the Dean, permit the substitution of that language for one of the two required.

Not all students admitted to the Graduate School may expect to obtain the doctor's degree at the end of the minimum period of three years. Those whose undergraduate work has been insufficient in amount or too narrowly specialized, as well as those whose preparation in their special field is inadequate, must count upon spending some time—determinable by their proficiency—in work of a character not so advanced as that implied in the minimum residence requirement. The minimum residence requirement of three years applies only to graduates of a four years' course in some college of this University, and to graduates of other institutions who have pursued a course of study substantially equivalent to that required for the first degree in one or the colleges of this University.

Residence as a graduate student in another university may, by permission of the Faculty, be accepted as the equivalent of residence at this University. No general statement can be made regarding the conditions under which this permission will be granted; each case will be decided on its merits. A request for credit for resident work elsewhere must be approved by the student's special committee. At least one year's residence in this University is required in all cases.

Residence for the master's degree may be credited toward the residence required for the degree of Doctor of Philosophy, provided the special committee in charge of the work approves, certifying the work done as suitable for the doctor's degree.

Graduate work carried on by a candidate who is at the same time an instructor or an assistant in Cornell University is estimated on the basis of a four years' minimum residence requirement for the doctor's degree.

FEES.

A matriculation fee of \$5 is charged all students on entering the University. Tuition is \$150 per year.

A graduation fee of \$20 is required of each person about to take an advanced degree. This fee must be paid at least ten days before Commencement. The amount will be refunded should the degree not be conferred.

Each student pursuing Laboratory Courses is required to deposit with the clerk of the college the sum of \$10 to cover breakage. A deposit of \$5 will be required of each student who desires to withdraw books from the library.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

FACILITIES FOR GRADUATE STUDY AND COURSES OF INSTRUCTION.

The courses outlined in the following pages are offered by the Medical College in New York City, and are grouped primarily on the basis of subject matter. Under each subject there is given, in a separate paragraph, a list of courses some of which are too elementary in character to be likely to interest graduate students of that subject. There then follows a list of all those courses which, whether open or not open to undergraduates, are deemed likely to be of profit to graduate students.

For courses in the medical sciences offered at Ithaca, the announcement of the Graduate School should be consulted.

ANATOMY.

Professors: C. R. STOCKARD; I. S. HAYNES, Applied Anatomy; I. STRAUSS, Neuro-Anatomy; W. M. BALDWIN.

Instructors: M. T. BURROWS; J. F. GUDERNATSCH.

Abundant material and sufficient apparatus are available for advanced study and work in the various branches of anatomy, embryology, histology, comparative morphology, descriptive anatomy, and experimental anatomy. Students desiring to pursue graduate work in any of these branches must have had in their college courses preliminary training in general zoology and comparative anatomy. A reading knowledge of German and French is essential.

The laboratories are well equipped with microscopes, projection apparatus, microtomes, thermostats, etc., for advanced anatomical work. There is a good aquarium which makes it possible to conduct experimental studies on lower vertebrates.

New York City offers exceptional advantages for obtaining fresh human material. The large slaughter-houses are accessible for comparative mammalian tissues and organs. The extensive collections of specimens and models in the city museums are extremely helpful and instructive to the advanced student.

The members of the staff offer courses in the various phases of anatomy in which they are especially engaged. The courses offered for the medical students appear in this announcement, and are particularly recommended to those students who have not pursued work of this kind. Technical and practical anatomical work are fully provided.

Morphology; Embryology; Histological Technic; General Histology; Microscopic Anatomy and Organology; Descriptive Anatomy including courses in dissection of the upper extremity, the head and neck, the lower extremity, the thorax, the abdomen and pelvis; Demonstrations on the Cadaver; Live Anatomy; Dissection Review; Topographical Anatomy; Neuro-

FACILITIES FOR GRADUATE STUDY.

Anatomy and Neuro-Histology; Applied Anatomy; Organs of Special Sense; Anatomical Research.

Anatomy of the Living Body.

Special and Topographical Studies of Different Regions.

Human Histology and Histogenesis.

Comparative Embryology.

Experimental Morphology.

Anatomy of the Infant and Postnatal Development.

PHYSIOLOGY.

Professors: GRAHAM LUSK; J. R. MURLIN; C. J. WIGGERS.

The physiological laboratory contains rooms furnished with modern apparatus for research in physical physiology, an operating room for aseptic surgical operations on animals, a chemical laboratory principally devoted to researches in metabolism, and a calorimetry room in which there is an Atwater-Rosa respiration calorimeter of small size, adapted for work on children, dwarfs, and dogs. It is also equipped for work in general physiology. The laboratory is open to workers under certain restrictions at all hours of the day and night.

Appropriate minor subjects for students whose major subject is not in physiology, include nutrition with laboratory work, physiology of the respiration and circulation, and general physiology, including physiology of the cell and physiology of reproduction, and physiology of the nervous system.

The library of Professor Lusk, together with a large collection of reprints of articles by various authors, may be freely used by students.

Blood and Circulation; Secretion; Respiration; Nutrition; Metabolism; the Nervous System; Special Senses; Psychic Relations; Seminary.

Physiology of Nutrition.

Respiration and Circulation.

General Physiology, including Physiology of the Cell and of Reproduction.

Physiology of the Nervous System.

PHYSIOLOGICAL CHEMISTRY AND CHEMICAL PATHOLOGY.

Professor: S. R. BENEDICT.

Instructors: J. C. BÖCK; E. OSTERBERG.

The laboratories available for advanced work and research in physiological chemistry and chemical pathology include those of the Department of Chemistry, located in the main College building, the laboratory of chemical pathology at the Loomis Laboratory building, the new chemical laboratories at Bellevue Hospital, and a research laboratory in the General Memorial Hospital. These laboratories provide adequate equipment for investigation in a great variety of special problems in the chemistry of the plant, animal or human organism in health or disease, by chemical, physical, or optical methods. In the College library the principal journals relating to these subjects are on file.

Students expecting to pursue investigation in physiological chemistry or

CORNELL UNIVERSITY MEDICAL COLLEGE.

chemical pathology should have adequate preliminary training in inorganic, analytical, and organic chemistry, as well as in physics, physiology, and physical chemistry, though a study of these latter subjects could be pursued at the College, together with more advanced work in special lines.

Organic and Physiological Chemistry; Research.

Physiological Chemistry.

Chemical Pathology.

PATHOLOGY.

Professors: JAMES EWING; W. J. ELSEY; O. H. SCHULTZE; J. C. TORREY;
M. G. SCHLAPP.

Instructors: W. H. TYTLER; F. M. HUNTOON; A. F. COCA; E. S.
L'ESPÉRANCE; J. B. GERE.

The laboratories of pathology occupy the fourth floor of the main building and the third and fourth floors of the Loomis Laboratory. The equipment includes all the means commonly employed in pathological research and much new and original apparatus. Both laboratories are provided with suitable quarters for the care of animals. The departmental library includes about 8,000 bound volumes and a large and valuable collection of monographs and reprints. There is an extensive collection of specimens illustrating pathological histology, much material for histological study, and a museum containing about 1,200 specimens. The recent material from the autopsies at several hospitals is constantly available for study, and furnishes a supply of problems in many fields, which is practically inexhaustible. Applicants who have been admitted to the Graduate School are urged to present the degree of Doctor of Medicine for admission to these courses. A limited number of fellowships is available in this department.

General Pathology; Special Pathology; Pathological Anatomy; Medico-legal Pathology; Autopsy Technics; Experimental Pathology; Bacteriology.

General Pathology.

Special Pathology.

Bacteriology.

Immunology.

Preventive Medicine and Hygiene.

EXPERIMENTAL THERAPEUTICS.

Professors: S. P. BEEBE; R. WEIL.

The laboratories of experimental therapeutics, located in the Loomis Laboratory, include modern facilities and equipment for the study of biochemistry, experimental physiology, bacteriology, immunity, and experimental pathology. The experimental work done by the Huntington Fund for Cancer Research has, in large part, been carried on in these laboratories during the last eight years.

FACILITIES FOR GRADUATE STUDY.

Whenever a problem demands the study of particular diseased conditions in human patients, the rich material afforded in the wards of Bellevue Hospital can be made available.

It is expected that a student who presents himself for work in this subject will have already completed in a satisfactory manner the preparatory courses in science which will fit him to begin immediately the study of some special problem. No didactic instruction is given; the student must be prepared for research before entering. A seminary is held each week at which the attendance of all the instructors and students engaged in research is required.

Biochemistry.

Experimental Physiology.

Immunity and Experimental Pathology, in their relation to Experimental Therapeutics.

PHARMACOLOGY.

Professor: R. A. HATCHER.

Instructor: C. EGGLESTON.

The laboratory of pharmacology, in the Loomis Laboratory, is well equipped for general work and research in pharmacology, and special opportunities will be afforded for doing work involving the action of drugs on the circulatory system, and methods of biological testing of drugs and medicines, either supplementing or replacing chemical tests for activity and identity.

The departmental library is sufficient for the immediate needs of workers, and its facilities are readily amplified by the College and other libraries near by which furnish every opportunity for extending the work.

Materia Medica and Pharmacy; Pharmacology.

Research in the Pharmacodynamics of Drugs; Toxicology.

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FACULTY OF MEDICINE AT ITHACA.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D.,
President.

SIMON HENRY GAGE, B.S.,
Professor of Histology and Embryology, Emeritus.

WILLIAM RIDGELEY ORNDORFF, A.B., Ph.D.,
Professor of Organic Chemistry.

ABRAM TUCKER KERR, B.S., M.D.,
Professor of Anatomy.

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D.,
Professor of Histology and Embryology.

SUTHERLAND SIMPSON, D.Sc., M.D., F.R.S. (Edin.),
Professor of Physiology.

MELVIN DRESBACH, M.S., M.D.,
Assistant Professor of Physiology.

JAMES BATCHELLOR SUMNER, A.M., Ph.D.,
Assistant Professor of Biochemistry.

Assistant Professor of Anatomy.

SAMUEL ARTHUR MAHOOD, B.S., A.M.,
Instructor in Chemistry.

HUGH McMILLAN KINGERY, A.B., A.M.,
Instructor in Histology and Embryology.

HENRY KENNEDY DAVIS, A.M.,
Instructor in Anatomy.

ANDREW THEODORE RASMUSSEN, A.B.,
Instructor in Physiology.

CHARLES ETHAN ALLEN, A.B.,
Assistant in Histology and Embryology.

JOHN JOSEPH KENNEDY, B.Chem.,
Assistant in Chemistry.

WALKER ELLSWORTH McCORKLE, Ph.B., M.S.,
Assistant in Anatomy.

FRANCIS WEBBER SHERWOOD, A.B.,
Assistant in Chemistry.

ALFRED LATIMER POTTER, A.B.,
Assistant in Anatomy.

REUBEN LORENZO HILL, B.S.,
Assistant in Biochemistry.

LLOYD LEWIS MERRIMAN, B.S.,
Assistant in Histology and Embryology.

WILLIAM MALCOLM STOBBS,
Assistant in Histology and Embryology.

GUSTAV JOSEPH NOBACK,
Assistant in Histology and Embryology.

ABRAM T. KERR, B.S., M.D.,
Secretary of the Medical College at Ithaca.

ITHACA DIVISION.

INSTRUCTION AT ITHACA.

DURING THE FIRST YEAR OF THE COURSE.

CALENDAR FOR ITHACA.

First Term, 1915-1916.

September 27th, Monday.—Academic year begins; matriculation of new students; University scholarship examinations begin.
September 28th, Tuesday.—Matriculation of new students.
September 29th, Wednesday.—Registration of matriculated students.
September 30th, Thursday.—Instruction begins in all departments of the University at Ithaca. President's annual address to students at 12 M.
December 22d, Wednesday.—Christmas recess begins.
January 5th, Wednesday.—Instruction resumed.
January 11th, Tuesday.—Founder's Day.
February 9th, Wednesday.—First term closes.

Second Term.

February 12th, Saturday.—Registration for the second term.
April 5th, Wednesday.—Instruction ends.
April 13th, Thursday.—Instruction resumed.
May 27th, Saturday.—Navy Day.
June 15th, Thursday.—Instruction ends.
June 16th, Wednesday.—Forty-sixth annual Commencement.

General Statement.

From its very foundation Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History course, and later also in a special two-year Medical Preparatory course. In 1898 the Medical College was established in New York City with a four years' course. At the same time the work of the first year was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of Botany, Zoölogy, Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca fully equivalent to the first year in New York City.

Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy, including Entomology and Comparative Anatomy, of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library, with its 365,000 bound volumes, 64,000 pamphlets, and over 2,500 current

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periodicals and transactions, is as freely open to medical students as to other University students.

Through the generosity of the late Dean Sage, of Albany, the University has been enabled to erect a building especially designed for anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide, with wings 40 feet square.

In the cellar are the cold-storage, embalming, and cremating rooms and store-rooms, and a large room, forty feet square, for aquaria, projection, etc.

In the basement are the ventilating and cold-storage machinery, a large lecture room, a recitation room, and an advanced laboratory for biochemistry and histology, besides the lower part of the large amphitheatre. Here also is located the operating room for the department of physiology.

On the first floor are located the cloak rooms for men and women, college office, library, reading room, faculty room, and private laboratory for histology, general laboratory for experimental physiology, demonstration, and dark room for physiology and the upper part of the large amphitheatre.

On the second floor is the department of histology, with a large general laboratory, a research laboratory, preparation rooms and private laboratories for the instructors. Upon this floor also is located the department of Physiology with a large general laboratory for biochemistry, a research laboratory for biochemistry, a research laboratory for experimental physiology, a metabolism room, an incubator room, repair room, and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms, study rooms, and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating the skeletons, and for storage.

The air in the building is constantly changed by forced ventilation. The lighting is especially good in all the rooms.

ITHACA DIVISION.

DEPARTMENTS, METHODS AND FACILITIES.
ANATOMY.

ABRAM T. KERR, B.S., M.D., *Professor.*

———, *Assistant Professor.*

HENRY K. DAVIS, A.B., *Instructor.*

WALKER E. McCORKLE, Ph.B., M.S., *Assistant.*

ALFRED L. POTTER, A.B., *Assistant.*

Anatomy is mostly concentrated into the first term. This gives a large amount of continuous time for the subject, which consists mainly of practical work in the laboratory. Each student is independent of the others, and those with special training or ability are encouraged to do more than the required work. Personal quizzes and demonstrations are given upon each stage of the work. In addition to this, there are frequent recitations and demonstrations to small sections of the class. The students are encouraged to make careful notes and drawings of the conditions which they find in their specimens. To facilitate the drawings, outline record charts are furnished. Clay also is provided for modelling bones and other parts. The department is well equipped with models and special preparations. These are for use in the demonstration and also for the personal use of students in the laboratory. There is plenty of dissecting material, which is embalmed and kept in cold-storage so as to be ready for use when needed.

The work is distributed as follows: In the first term at least twenty-two hours per week are given to Anatomy. A complete disarticulate skeleton is loaned to each student. The head, neck, thoracic walls and viscera, abdominal walls and viscera including the pelvis, will be dissected during the term. The bones of the parts dissected will be taken up as they are reached in the progress of the dissection. The organs will be studied not only topographically and systematically, but enough of the structure will be considered to facilitate the work in Histology and Physiology. In the demonstrations and recitations accompanying the dissecting work, a considerable use is made of live models to facilitate an appreciation of the conditions existing in the live body at the same time they are being studied in the cadaver.

In the second term the students attend demonstrations and recitations in which the work of the preceding term is reviewed, and an extensive use is made of live models to locate the position and relation of structures studied. The gross anatomy of the central nervous system is studied in the laboratory.

Courses 1, 2, 3, 5 and 6 are required of first-year medical students.

Those who satisfactorily complete the required work may do advanced work. The facilities of the department will be placed at the disposal of those properly qualified to undertake graduate and research work.

1. Anatomy of the Head and Neck.—First Term. Credit, 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle and Mr. Potter. Laboratory work; dissection and conference.

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2. Anatomy of the Thoracic Walls and Viscera.—First term. Credit, 1 hour, 22 actual hours per week for 2 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle, and Mr. Potter. Laboratory work; dissections and conferences.

3. Anatomy of the Abdominal and Pelvic Walls and Viscera.—First term. Credit 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle, and Mr. Potter. Laboratory work, dissections and conferences.

5. Anatomy of the Central Nervous System.—Second term. Credit, 2 hours, 5 actual hours per week. Professor Kerr and Mr. Davis. Dissection of the Spinal Cord and Brain, with occasional demonstrations and recitations.

6. Anatomy of the Living Body.—Second term. Credit, 1 hour, 2 actual hours per week. Dr. Kerr and Mr. Davis. Interpretation of dissecting room material by means of the living body.

7. Anatomy of the Upper Extremity.—First and second terms. Credit, 2 to 3 hours. Professor Kerr and Mr. Davis. Laboratory work; dissection and conference.

8. Anatomy of the Lower Extremity.—First and second terms. Credit, 2 to 3 hours. Professor Kerr and Mr. Davis. Laboratory work; dissection and conference.

9. Topographical Anatomy.—First and second terms. Credit, 2 to 5 hours. Prerequisite anatomy courses 1, 2, 3, 7, or 8. Professor Kerr. The detailed dissection and study of any region.

12. Research in Anatomy.—First and second terms. Professor Kerr. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

HISTOLOGY AND EMBRYOLOGY.

B. F. KINGSBURY, Ph.D., M.D., *Professor.*

HUGH M. KINGERY, A.B., A.M., *Instructor.*

CHARLES E. ALLEN, A.B., *Assistant.*

LLOYD L. MERRIMAN, B.S., *Assistant.*

WILLIAM M. STOBBS, *Assistant.*

GUSTAV J. NOBACK, *Assistant.*

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories in vertebrate histology, and vertebrate embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, microtomes and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for

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applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction. The collection of histologic and embryologic specimens is extensive and constantly increasing.

The rooms for the use of the department are on the second floor of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, department office, and five private laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the college, is steadily growing. Every encouragement is given for the fullest utilization of the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences and demonstrations. The work required of students of medicine is given in two courses, 10 and 5. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 3, 7, and 8. Courses open to students in the Colleges of Arts and Sciences and Veterinary Medicine are given in the Courses of Instruction of these Colleges.

COURSES REQUIRED OF STUDENTS OF MEDICINE.

10. Histology.—First term. Credit, 6 hours. Professor Kingsbury and Mr. Kingery. Required of first-year students of medicine. Four laboratory periods and two lectures each week. The work includes (a) The histology of the tissues and organs (except the nervous system and organs of sense); (b) the main facts of histogenesis and the development of the organs (except nervous system and sense organs). It is also highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 4).

10a. Histology.—First term. Credit, 3 hours. Professor Kingsbury. Special topics in histology and embryology, designed for those who have had acceptable courses in histology and embryology, and to serve as a review. Two laboratory periods and one lecture-conference each week.

5. The Nervous System and Organs of Sense.—Histology and Development. Second term. Credit, 2 hours. Professor Kingsbury. Two laboratory periods with laboratory conferences and quizzes. The microscopic structure and development of the nervous system and organs of sense are systematically studied.

ADVANCED AND ELECTIVE COURSES.

3. Special Histology and Technique.—First term. Credit, 3 hours. Professor Kingsbury and Instructor Kingery. One recitation, demon-

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stration, or lecture, 8 T. Two laboratory periods by assignment.

In this course a more detailed knowledge of histology and facility in technique is gained by practical work in one or more of the fields of histology or embryology. Designed for those who desire a better working knowledge of histology for use in Biology or Medicine.

7. Advanced Work in Histology and Embryology.—First and second terms. Professor Kingsbury and Instructors. Laboratory work, eight or more actual hours per week, with Seminary (Course 8).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations in histology and embryology.

Course 7 is open to those who have had Courses 10 and 3. or their equivalents. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the Department as early as possible, so that the work may be planned to the best advantage.

8. Seminary.—First and second terms. One hour each week at an hour to be arranged.

For the discussion of current literature and the presentation of original work by the members of the Department staff and those doing advanced work in the Department. It may be taken in connection with Course 3 or Course 7.

DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY.

SUTHERLAND SIMPSON, M.D., D.Sc., F.R.S. (Edin.), *Professor of Physiology.*

MELVIN DRESBACH, M.S., M.D., *Assistant Professor of Physiology.*

JAMES B. SUMNER, A.M., Ph.D., *Assistant Professor of Biochemistry.*

ANDREW T. RASMUSSEN, A.B., *Instructor in Physiology.*

REUBEN L. HILL, B.S., *Assistant in Biochemistry.*

Physiology.

This subject is taught in the first and second terms of the first year, and the work is carried on by means of lectures, recitations, demonstrations, and practical laboratory instruction. In the laboratory the student is made to carry out for himself experiments which demonstrate the fundamental facts of the science, and he is taught to draw conclusions from these facts. Special attention is given to experimental methods which are likely to be of importance in the study of clinical medicine.

The following courses are offered:

1. Physiology of the Cell, Muscle, Nerve, Heart and Circulation, Blood and Lymph, and Respiration.—First term. Credit, 3 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Three lectures or recitations weekly with demonstrations, where necessary. At frequent intervals written and oral examinations will be held.

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2. Physiology of Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.—Second term. Credit, 3 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Five lectures or recitations weekly for the first ten weeks of the term, with demonstrations and examinations as in Course 1. The latter part of this course will be taken up with a review of the whole subject.

4. Experimental Physiology.—Second term. Credit, 5 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Two six-hour laboratory periods per week. In this course the physiology of the cell, muscle, nerve, heart and circulation, blood, respiration, alimentary system including liver and pancreas, internal secretion, body temperature and animal heat, nervous system and special senses will be studied practically by each student individually under the direct superintendence of the professor and assistants. The course will be supplemented by demonstrations whenever necessary. Practical examinations will be held from time to time, and the student's knowledge of the work tested orally at each meeting.

5. Physiology of the Nervous System and Special Senses.—Second term. Credit, 2 hours. Professor Simpson. This is given as a special course of lectures, five weekly for the last six weeks of the term, after the student has studied the anatomy of the brain and spinal cord, and special sense organs.

7. Seminary.—Second term. Credit, 1 hour. A seminary is held in association with Biochemistry at which current literature is discussed, and the results of original investigations carried on by workers in the laboratories are presented for criticism. Students are required to attend these meetings and to take part in the discussions, and each student is expected to give a communication on at least one occasion during the term.

8. Advanced Work and Research.—The laboratory is open daily from 8 A.M. till 6 P.M. for advanced work and original investigation under the direction of the professor and assistants.

Biochemistry.

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the composition of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special attention is devoted to the quantitative analysis of the gastric contents, milk, and urine. Each student completes the course by performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demon-

CORNELL UNIVERSITY MEDICAL COLLEGE.

strations; while by means of lectures and recitations it is sought to coördinate the whole, and to expound the theoretical aspects of the subject.

The following courses are offered:

15. General Biochemistry.—Second term. Credit, 5 hours. Two lectures or recitations and three three hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Assistant Professor Sumner and Mr. Hill. Required of first-year students of medicine.

17. Special Chapters in Biochemistry.—First term. Credit, 1 hour. Assistant Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

20. Advanced and Research Work in Biochemistry.—First and second terms. Assistant Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

7. Seminary.—See Physiology, Course 7.

CHEMISTRY.

WILLIAM RIDGELY ORNDORFF, A.B., Ph.D., *Professor of Organic Chemistry.*

SAMUEL A. MAHOOD, B.S., A.M., *Instructor.*

JOHN J. KENNEDY, B.Chem., *Assistant.*

FRANCIS W. SHERWOOD, A.B., *Assistant.*

Organic Chemistry, or the Chemistry of the Compounds of Carbon.—In this course the study of the typical compounds of carbon, their properties, reactions, and relations to one another, is taken up, especial attention being given to those organic substances that are of physiological importance. The course consists of lectures, recitations supplemented by frequent written examinations, and laboratory work. The lectures are fully illustrated by experiments, specimens of the compounds considered, and charts.

32. Elementary Organic Chemistry.—First term. Credit, 4 hours. Three lectures, recitations, or written reviews, and three hours' laboratory work weekly. Mr. Mahood and Messrs. Kennedy and Sherwood.

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SCHEDULE AND SUMMARIZED STATEMENT.

In this schedule the Counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half year, gives a credit of one; for laboratory work it requires two and one-half actual hours weekly for a term or half a year to secure a credit of one.

SCHEDULE OF REQUIRED COURSES.

First Term.

	<i>No. of Course.</i>	<i>University Hours.</i>	<i>Actual Hours per Week.</i>
Anatomy	1 to 3	9	22
Physiology	1	3	3
Organic Chemistry	32	4	6
Histology	10	6	14
		—	—
		22	45

Second Term.

Histology	5	2	6
Physiology	2	3	3
Physiology	4	5	12
Physiology	5	2	2
Physiology	7	1	1
Biochemistry	15	5	11
Anatomy	5	2	5
Anatomy	6	1	2
		—	—
		21	42

SUMMARY OF REQUIRED COURSES.

First Term.

1. **Anatomy of the Head and Neck.**—Credit, 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle, and Mr. Potter. Laboratory work; dissections and conferences.

2. **Anatomy of the Thoracic Walls and Viscera.**—Credit, 1 hour, 22 actual hours per week for 2 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle, and Mr. Potter. Laboratory work; dissections and conferences.

3. **Anatomy of the Abdominal and Pelvic Walls and Viscera.**—Credit, 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Mr. Davis, Mr. McCorkle, and Mr. Potter. Laboratory work; dissections and conferences.

CORNELL UNIVERSITY MEDICAL COLLEGE.

1. Physiology of the Cell, Muscle, Nerve, Heart and Circulation, Blood and Lymph, and Respiration.—Credit, 3 hours. Professor Simpson and assistants. Three lectures, demonstrations or recitations weekly.

32. Elementary Organic Chemistry. First term. Credit, 4 hours. Three lectures, recitations, or written reviews, and three hours' laboratory work weekly. Mr. Mahood and Messrs. Kennedy, Rose and Sherwood.

10. Histology.—Credit, 6 hours. Professor Kingsbury and Mr. Kingery. Four laboratory periods and two lectures each week.

Second Term.

5. The Nervous System and Organs of Sense.—Credit, 2 hours. Professor Kingsbury. Histology and Development. Two laboratory periods with laboratory conferences and quizzes.

2. Physiology of Respiration, Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.—Credit, 3 hours. Professor Simpson and assistants. The latter part of the course will be taken up with a review of the whole subject. Five lectures or recitations weekly for the first ten weeks of the term with demonstration and examinations.

4. Experimental Physiology.—Credit, 5 hours. Professor Simpson and assistants. Two six-hour laboratory periods per week. This course will be supplemented by demonstrations whenever necessary.

5. Physiology of the Nervous System and Special Senses.—Credit, 2 hours. Professor Simpson. Five lectures per week for the last six weeks of the term.

15. General Biochemistry.—Credit, 5 hours. Two lectures or recitations and three three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Assistant Professor Sumner and Mr. Hill.

5. Anatomy of the Central Nervous System.—Credit, 2 hours, 5 actual hours per week. Professor Kerr and Mr. Davis. Dissection of the Spinal Cord and Brain, with occasional demonstrations and recitations.

6. Anatomy of the Living Body.—Credit, 1 hour, 2 actual hours per week. Professor Kerr and Mr. Davis. Interpretation of dissecting room material by means of the living body.

7. Seminary. Physiology.—Credit, 1 hour. Each student is expected to give a communication on at least one occasion during the term.

REQUIREMENTS FOR ADMISSION.

The requirements for admission are identical with those of the college at New York City (see page 20).

ITHACA DIVISION.

THE COMBINED A.B. AND M.D. DEGREES.

It will be seen from Section II of the requirements for admission that the two degrees, Bachelor of Arts and Doctor of Medicine, may be obtained in seven years. The first three years must be taken in the College of Arts and Sciences. The fourth year is the first year in the Medical College, and at the end of it the student receives the degree of A.B. The last three years are also taken entirely in the College of Medicine at New York City. In the first and second years of the course in Arts and Sciences certain subjects are prescribed, and the rest are elective as appears from the following rule:

Before a student may be registered as a Junior he must have completed sixty hours of work, which shall include in English and History six hours, in one or more languages other than English six hours, in Philosophy and Mathematics six hours, and in Physics, and Chemistry, Geology, Physical Geography, and the biologic sciences six hours, of which hours the student is required to take at least twelve, and advised to take more, in his freshman year. Each six hours may be entirely in one division (for example, Philosophy six hours), or partly in one and partly in another (for example, Philosophy three hours and Mathematics three hours).

For admission to the Medical College Physics, Chemistry and Biology are prescribed.

The requirements specified in the two preceding paragraphs are met in the following curriculum:

FIRST YEAR ARTS.

	<i>Course.</i>	<i>1st Term.</i>	<i>2d Term.</i>
English or History	—	3	3
*Foreign Language	—	3	3
Biology	1	3	3
‡Mathematics or Philosophy	—	3	3
Physics Lectures and Recitations.....	2	5	—
Physics Laboratory	10	—	3
		—	—
		17	15

*Students should have a reading knowledge of French and German.

‡Those who have Solid Geometry and Trigonometry should elect Philosophy.

§In place of course 5 students may elect two additional hours in course 10, but should notify the professor in charge.

SECOND YEAR ARTS.

	<i>Course.</i>	<i>1st Term.</i>	<i>2d Term.</i>
Chemistry, Inorganic	1	6	—
Chemical Analysis—Qualitative and Quantitative	6	—	5
*Biology	4	4	4
‡Elective	—	8	10
		—	—
		18	19

*Courses in Biology, Zoölogy, Histology and Embryology, to suit the needs of the students.

‡Those who have not a reading knowledge of French and German should elect one or both of these languages. Students who elect Mathematics in their first year should take Philosophy in their second.

CORNELL UNIVERSITY MEDICAL COLLEGE.

The rest of the work in the second year and the entire third year is elective. In regard to the elective work the secretary of the Medical College will be glad to confer with students in Arts and Sciences, who later expect to enter the Medical College.

RESIDENCE AND REGISTRATION.

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 89).

No credit is given for work done in absentia. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term (September 27 and 28, 1915, and February 12, 1916) students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

EXAMINATIONS.

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the University student found to be markedly deficient will be dropped from the College at the end of the term in which such deficiency is shown. In the case of a student so dropped, an application for re-admission will not be entertained until after the expiration of one term.

ADVANCEMENT FROM FIRST TO SECOND YEAR

Upon the completion of the year in Ithaca, the student must obtain from the Faculty a statement of all the work which he has done; and accompanying this statement must be a recommendation that he be allowed to register in the New York division of the Medical College. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

ITHACA DIVISION.

CHARGES FOR INSTRUCTION.

FIRST YEAR.

Matriculation	\$5.00
Tuition	150.00
Laboratory Fees	35.00
	<hr/>
	\$190.00

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

To secure payment for breakage of instruments, apparatus, etc., each student is required to deposit with the treasurer \$10. This deposit, less the amount charged for breakage, will be returned at the end of the year.

BOARD AND ROOMS.

A student's expenses at Cornell, beyond the stated University fees and a small outlay for books and instruments, depend in large measure on his personal tastes and habits. His expenses, other than those for board and room, may be estimated at the normal rate prevailing throughout that section of the country in which Ithaca is situated.

The University has but one dormitory for men students. This is known as Cascadilla Hall, and is situated near the main entrance gate to the Campus. It furnishes accommodations for about 200 men. For particulars address Mr. T. Tree, Manager of Residential Halls, Sage College, Ithaca, N. Y. There are, however, in Ithaca many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$5 to \$12 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board.

There are under construction two dormitories for men, which will be opened about September, 1916.

Before engaging rooms, students should carefully examine the sanitary conditions, and should particularly insist on satisfactory and sufficient fire-escapes. The University publishes and distributes a list of approved rooming houses. In general, room contracts should not be made for longer than a single term. New students are advised to come to Ithaca a few days in advance of the beginning of their University duties in order that they may have ample time to secure room and board before the opening of the college year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The dormitories for women students are Sage College and Prudence Risley Hall. In these buildings, which are exclusively for women students, the total cost of board, laundry and rent of furnished rooms, with heat and light, is \$310 a year. The dormitories are heated by steam and lighted by electricity. The University Adviser of Women has jurisdiction over all women students in the University, and women students are permitted to lodge and board outside of the dormitories for women except in houses approved by the Adviser, and subject to her direction. Prospective women students should write to the Adviser of Women for information concerning any matters in which they may need assistance. Inquiries in regard to board and rooms in the women's dormitories should be addressed to the Manager of Residential Halls, Sage College, Ithaca, N. Y.

CORNELL UNIVERSITY MEDICAL COLLEGE

ITHACA, N. Y.

FIRST YEAR—SESSION 1914-1915—FIRST TERM

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8	Anatomy	Physiology	Anatomy	Physiology	Anatomy	Physiology
9		Anatomy		Anatomy		Histology
10						
11						
12	Organic Chemistry		Organic Chemistry	Histology	Organic Chemistry	
2	Histology	Anatomy	Histology	Organic Chemistry	Histology	
3						
4						
5						

FIRST YEAR—SESSION 1914-1915—SECOND TERM

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8	Anatomy*	Anatomy	Physiology	Anatomy	Physiology	Physiology
9		Physiology	Anatomy*	Physiology	Biochemistry	Biochemistry
10						
11						
12						
2	Histology	Physiology	Histology	Physiology	Biochemistry	
3						
4						
5			Physiology Sem.			

*For the first nine (9) weeks of the term.

NOTE. The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

CORNELL UNIVERSITY MEDICAL COLLEGE.

GRADUATES, 1914

Doctors of Medicine.

Philip Moen Stimson.....	New York Hospital
A.B., 1910, Yale University.	
James W. McChesney.....	New York Hospital
A.B., 1911, Cornell University.	
David Preswick Barr	Bellevue Hospital
A.B., 1911, Cornell University.	
John Harry Morris	Bellevue Hospital
A.B., 1911, Cornell University.	
John Henry Nugent	Bellevue Hospital
A.B., 1911, Cornell University.	
- May Elizabeth Walker	Bellevue Hospital
B.L., 1903, University of California.	
Jack V. Bohrer	Bellevue Hospital
B.S., 1910, Ohio University.	
Robert Joseph Shea	Bellevue Hospital
A.B., 1909, A.M., 1910, Manhattan College.	
-Geraldine Eggleston Watson	Bellevue Hospital
A.B., 1911, Cornell University.	
-Anna Tjomsland	Fourth Division, Bellevue Hospital
A.B., 1911, Cornell University.	
-Helen Letitia Palliser	Fourth Division, Bellevue Hospital
A.B., 1905, A.M., 1907, Barnard College.	
Benjamin James Slater	Hudson Street Hospital
B.S., 1910, University of Rochester.	
Joseph Harkavy	Mt. Sinai Hospital
A.B., 1910, College of the City of New York.	
Isadore Rosen	Mt. Sinai Hospital
A.B., 1910, College of the City of New York.	
William Herman Sugarman.....	Brooklyn Jewish Hospital, Brooklyn, N. Y.
B.S., 1910, College of the City of New York.	
William Donald Rolph	Lane Hospital, San Francisco, Cal.
A.B., 1911, Cornell University.	
Alfred Kelly Bates	Boston City Hospital, Boston, Mass.
A.B., 1911, Cornell University.	
Max Soletsky	Stamford Hospital, Stamford, Conn.
A.B., 1910, College of the City of New York.	
-Anne Eunice Cochran	Memorial Hospital, Worcester, Mass.
A.B., 1905, Vassar College.	
Smiley Blanton	University of Wisconsin, Madison, Wis.
B.S., 1904, Vanderbilt University.	

CORNELL UNIVERSITY MEDICAL COLLEGE.

STUDENTS, 1914-1915.

Candidates for the Degree of Doctor of Medicine.

FOURTH YEAR.

- Rowland P. Blythe, A.B., 1912, Cornell University....Wappinger Falls, N. Y.
Jacob Buckstein, B.S., 1911, College of the City of New York,
Brooklyn, N. Y.
Reginald Burbank, A.B., 1911, Trinity College.....Pittsfield, Mass.
Paul Clinton Cook, A.B., 1911, Williams College.....Pittsfield, Mass.
Albert Sturges Crawford, B.S., 1910, Pomona College.....Claremont, Cal.
- Katherine H. Degnan, A.B., 1910, Trinity College; A.M., 1911, Brown
UniversityProvidence, R. I.
Leon E. DeYoe, A.B., 1912, Cornell University.....Ramsey, N. J.
Leo Edelman, A.B., 1911, Cornell University.....Brooklyn, N. Y.
George Gifford Fawcett, B.S., 1909, University of Idaho....Moscow, Idaho
- Gertrude Guild Fisher, A.B., 1909, Wellesley College.....New York, N. Y.
Roscoe Conkling Giles, A.B., 1911, Cornell University.....Brooklyn, N. Y.
George Lazarus Hadjopoulos, A.B., 1905, Anatolia College,
Nigdeh Deneghie, Turkey
Kenneth Johnson, Ph.B., 1911, Wooster University.....Montclair, N. J.
William Sharp McCann, A.B., 1911, Ohio State University.....Cadiz, Ohio
John Miller, A.B., 1912, Cornell University.....Cohocten, N. Y.
- Mary B. Norton, B.S., 1895, Parsons College.....Eldon, Iowa
Arthur Palmer, A.B., 1911, Brown University.....Ripley, N. Y.
Sidney Douglas Palmer, A.B., 1909, Williams College.....New York, N. Y.
Guy McMaster Parkhurst, A.B., 1912, Cornell University.....Bath, N. Y.
Alfred Edward Phelps, A.B., 1911, Amherst College.....Brooklyn, N. Y.

THIRD YEAR.

- Hilda Wood Allen, A.B., 1909, Barnard College; A.M., 1910, Columbia
UniversityNew York, N. Y.
Alexander Altschul, B.S., 1912, College of the City of New York,
New York, N. Y.
Emir Alan Benner, B.S., 1909, Pomona College.....Wellesley, Mass.
Addison Hayes Bissell, Litt.B., 1912, Princeton University....Newark, N. J.
Robert Stephen Cleaver, B.S., 1912, Rutgers College.....Schuylerville, N. Y.
John Anthony Colucci, A.B., 1912, Manhattan College.....New York, N. Y.
Edmund Latham Douglass, A.B., 1913, Cornell University....Groton, Conn.
George Stewart Hackett, Jr., A.B., 1912, University of Wooster,
Fayette City, Pa.
Carl Clifford Harvey, B.S., 1912, Wesleyan University....Middletown, Conn.
Louis Hausman, A.B., 1912, College of the City of New York,
New York, N. Y.
William V. Healey, A.B., 1913, Syracuse University.....New York, N. Y.

CORNELL UNIVERSITY MEDICAL COLLEGE.

- ✓ Eugenia Ingerman, A.B., 1911, Barnard College.....New York, N. Y.
- ✓ Anna Kleegman, A.B., 1913, Cornell University.....New York, N. Y.
- Arthur Furman Kraetzer, B.S., 1912, Princeton University...Brooklyn, N. Y.
- Edward Augustus Lane, A.B., 1912, Williams College.....Brooklyn, N. Y.
- Nils Paul Larsen, B.S., 1913, Massachusetts Agricultural College,
Bridgeport, Conn.
- Michael J. Lynch, B.S., 1912, Manhattan College.....New York, N. Y.
- John D. Lyttle, A.B., 1913, Cornell University.....Newark, N. J.
- Joseph Leo McGoldrick, A.B., 1912, Manhattan College.....Brooklyn, N. Y.
- Arthur Spaulding McQuillan, A.B., 1913, Cornell University,
Plattsburgh, N. Y.
- Henry Joseph Meister, A.B., 1913, Cornell University.....Dunkirk, N. Y.
- Monroe A. Meyer, A.B., 1913, Cornell University.....New York, N. Y.
- Attilio Milici, A.B., 1913, Yale University.....New York, N. Y.
- Charles Townsend Olcott, A.B., 1911, Princeton University..New York, N. Y.
- Theodore Byington Reed, Ph.B., 1912, Yale University.....Montclair, N. J.
- Ezra Burt Sanford, A.B., 1913, Cornell University.....New York, N. Y.
- Royal Francis Sengstacken, A.B., 1913, Syracuse University,
Stony Point, N. Y.
- Louise Townsend, A.B., 1913, Cornell University....New Brighton, N. Y.
- James Ford Trimble, A.B., 1910, Washington and Jefferson College,
Jeanette, Pa.
- Philip Layton Turner, B.S., 1912, Amherst College.....Elmhurst, N. Y.
- Eleanor Van Ness Van Alstyne, B.S., 1906, University of Chicago,
Ph.D., 1913, Cornell University.....New Rochelle, N. Y.
- Hudson, J. Wilson, A.B., 1913, Cornell University.....Ithaca, N. Y.

SECOND YEAR.

- Solomon Berger, A.B., 1914, Cornell University.....Elmira, N. Y.
- Albert F. Coutant, B.S., 1913; M.A., 1914, Cornell University, Brooklyn, N. Y.
- Albert Loyal Crane, A.B., 1913, Columbia University.....New York, N. Y.
- Birdina Crosby, B.S., 1913, Cornell University.....Brocton, N. Y.
- Archie Leigh Dean, Jr., B.S. in Agr., 1913, Cornell University,
Brooklyn, N. Y.
- Albert Barnett Ferguson, A.B., 1914, University of Maine..New York, N. Y.
- Edward P. Flood, A.B., 1914, Cornell University.....Albany, N. Y.
- Michael Herbert Glazer, A.B., 1913, Yale University....New Haven, Conn.
- Louis Greiner, A.B., 1913, College of the City of New York,
New York, N. Y.
- Connie M. Guion, A.B., 1906; Wellesley College, A.M., 1913,
Cornell UniversityCharlotte, N. C.
- Henry Haywood, Jr., B.S., 1914, Dartmouth College..New Brunswick, N. J.
- Samuel Chester Johnson, A.B., 1914, Cornell University...Brooklyn, N. Y.
- Abraham Kardiner, A.B., 1912, College of the City of New York,
New York, N. Y.
- Warren Post Kortright, A.B., 1913, Williams College..Huntington, N. Y.

CORNELL UNIVERSITY MEDICAL COLLEGE.

John Francis McGovern, Jr., B.Sc., 1912, Rutgers College.

New Brunswick, N. J.

George Haven Mankin, A.B., 1914, Cornell University.....Thurmond, W. Va.

— Merle M. Mosier, A.B., 1914, Cornell University.....Demarest, N. J.

Ralph D. Reid, A.B., 1914, Cornell University.....Schenectady, N. Y.

Linn Van der Heyden Reed, A.B., 1913, Yale University..New York, N. Y.

Daniel Schultheis, A.B., 1913, Cornell University.....College Point, N. Y.

Galen Fisher Scudder, A.B., 1913, Princeton University..Glastonbury, Conn.

Herman Sharlit, A.B., 1913 (Feb.), Adelphi College, B.S., 1913,

Columbia UniversityBrooklyn, N. Y.

John Lazear Sly, A.B., 1913, Williams College.....Warwick, N. Y.

Ramsay Spillman, A.B., 1914, Cornell University.....Washington, D. C.

Abraham Morris Spindler, A.B., 1911, College of the City of New

YorkNew York, N. Y.

— Jeannette Russell Stobo, A.B., 1913, Barnard College...New York, N. Y.

James Dowling Trask, Jr., Ph.B., 1913, Yale University..Highlands, N. J.

Kaufman Wallach, A.B., 1914, Cornell University.....New York, N. Y.

FIRST YEAR.

✓ Irvin Balenzweig, A.B., Feb., 1915, College of the City of New

York*New York, N. Y.

Frank Edward Barnes, A.B., 1914, Columbia University.....Foual, Vt.

✓ John Vail Bissett, B.Sc., 1912, Rutgers College.....New Brunswick, N. J.

Ralph Blumberg, A.B., 1914, Colgate University.....Brooklyn, N. Y.

✓ George Theron Blydenburgh, B.S., 1914, Wesleyan University,

Richmond Hill, N. Y.

✓ Jacob August Cantor, A.B., 1914, College of the City of New York,

New York, N. Y.

✓ John Augustine Casey, A.B., 1914, St. Johns College.. Bridgeport, Conn.

✓ Albert Merwin Clark, A.B., 1913, Wesleyan University...Mt. Vernon, N. Y.

Samuel Henry Cobb, A.B., 1913, Amherst College.....South Orange, N. J.

✓ Sidney Barnett Conger, Buchtel College*.....Akron, Ohio

Thomas Wallis Davis, B.S., 1914, Trinity College.....Utica, N. Y.

✓ Hartley Greaves Dewey, B.S., 1913, Union College.....Schenectady, N. Y.

✓ Walter Eber Divine, B.S., 1914, Colgate University.....Brooklyn, N. Y.

✓ Haynes Harold Fellows, A.B., 1913, Wesleyan University.....Troy, N. Y.

✓ Russell Sweetser Ferguson, University of Maine*.....New York, N. Y.

Francis Ford, Cornell University*.....Jeannette, Pa.

✓ Jacob Sanson Goldberg, A.B., 1914, College of the City of New York,

New York, N. Y.

✓ Jacob Milton Goldfarb, Cornell University*.....Brooklyn, N. Y.

✓ William J. Jackson, A.B., 1914, Fordham University.....New York, N. Y.

✓ Leon Loewe, Cornell University*.....Brooklyn, N. Y.

Howard Spencer MacKirdy, A.B., 1914, Wesleyan University,

New Britain, Conn.

*Admitted under Clause II, see page 20.

CORNELL UNIVERSITY MEDICAL COLLEGE.

- Bernice Marks, A.B., 1913, Vassar College.....New York, N. Y.
- ✓ Ralph Emerson Myers, A.B., 1909; A.M., 1910, Yale University,
Cobleskill, N. Y.
- Justin Everett O'Keefe, A.B., 1914, Clark College.....Worcester, Mass.
- Gustav Kielland Oxholm, A.B., 1914, Clark University....New York, N. Y.
- ✓ Maurice Timothy Root, Cornell University*.....Farmington, Conn.
- John Henry Rowland, B.S., 1914, Rutgers College....New Brunswick, N. J.
- ✓ Samuel Schwadron, A.B., 1913, College of the City of New York,
New York, N. Y.
- Arthur McGrath Stokes, A.B., 1913, University of Rochester,
Union Hill, N. Y.
- Raymond Addison Warburton, B.S., 1913, University of Alabama,
Brooklyn, N. Y.
- ✓ Walter Weller, Cornell University*.....Hoboken, N. J.
- ✓ Edward Etsuya Yoshii, 1907, Doshisha University, Japan†...Brooklyn, N. Y.

FIRST YEAR AT ITHACA.

- Mary F. Brew, A.B., 1914, Barnard College.....Brooklyn, N. Y. -
- Frederick T. Comstock, Cornell University*.....Glen Falls, N. Y. -
- ✓ Lloyd F. Craver, Cornell University*.....Albany, N. Y. +1 a1
- Walter H. Gill, Cornell University*.....Kingston, N. Y. -
- Edward M. Hanrahan, Cornell University*.....Binghamton, N. Y. -
- ✓ Arthur M. Kimberly, A.B., 1912, Williams College.....Watervliet, N. Y. +
- Leila C. Knox, A.B., 1907, Wellesley College.....Conklin, N. Y. + + a1
- Donald C. McGill, Cornell University*.....Rochester, N. Y. -
- ✓ Mervin E. Marsland, Cornell University*.....Hamden, N. Y. + + a
- Lloyd L. Merriman, B.S., 1914, Huron College.....Carpenter, S. D. +
- Hugo Muench, Cornell University*.....St. Louis, Mo. -
- Jean H. Pattison, A.B., 1911, Vassar College.....New York, N. Y. +
- Andrew T. Rasmussen, A.B., 1910, Brigham Young University,
Provo, Utah. - no
- Mary A. Reesor, A.M., 1910, Columbia University.....New York, N. Y. +
- ✓ Margaretha A. Ribble, A.B., 1913, Sweet Briar College.....Wytheville, Va. +
- Bertha L. Ricketts, A.M., 1910, Columbia University.....Jackson, Miss. +
- ✓ Morton Ryder, Cornell University*.....Carmel, N. Y. + + a1
- Florence A. Simpson, A.B., 1914, Adelphi College.....Brooklyn, N. Y. +
- William M. Stobbs, Cornell University*.....Ithaca, N. Y. + + a
- John D. Sutton, Cornell University*.....Albion, N. Y. +
- Helen L. Walbridge, A.B., 1902, Smith College.....New York, N. Y. +
- ✓ Joseph J. Wells, Cornell University*.....Ithaca, N. Y. +

*Admitted under Clause II, see page 20.

†Doshisha University, at that time, granted no degrees, but offered an equivalent five-year course. Admitted under Clause III, page 20.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Candidates for the Degree of Doctor of Philosophy.

- Josef Carl Böck, Polytechnic Institut, 1909, Vienna.....Brooklyn, N. Y.
Elizabeth Lenita Brezee, A.B., 1911, Vassar College..Saratoga Springs, N. Y.
Frank Curtis Gephart, A.B., 1906, University of Kansas..Oskaloosa, Kansas
Ethel Olivia Hunter Hitchcock, M.D., 1902, Cornell University,
New York, N. Y.
Jessie Moore Rahe, A.B., 1901, Leland Stanford Jr. University, A.M.,
1912, Columbia UniversityNew York, N. Y.
Leopold Rein, A.B., 1904, College of the City of New York; M.D.,
1911, Cornell University.....Brooklyn, N. Y.

Graduate Students—Not Candidates for a Degree

- Francis A. Auleta, M.D., 1901, New York University (Anatomy),
New York, N. Y.
- George Baker Breedlove, M.D., 1900, University of Tennessee
(Urology) Martinsville, Ind.
- Leon J. Coria, M.D., 1904, University of Minnesota (Ophthalmology),
Minneapolis, Minn.
- Lindley Dobson, M.D., 1891, Bellevue Hospital Medical College (Med-
ical Diagnosis, Operative Surgery).....New York, N. Y.
- Helen Northell Dodd, Columbia University (Chemistry)..New York, N. Y.
- Newman R. Donnell, M.D., 1901, St. Louis University (Ophthal-
mology)St. Louis, Ma.
- Joseph F. Duane, M.D., 1902, Rush Medical College (Ophthalmology),
Peoria, Ill.
- Margaritain Falcone, M.D., 1897, University of Catania (Anatomy),
New York, N. Y.
- Herman Fried, M.D., 1910, Long Island Medical College (Clinical
Pathology)New York, N. Y.
- Jesse Lewis Gannon, M.D., 1904, University of Vermont (Ophthal-
mology) Rockland, Maine
- Joseph Arthur Girouard, M.D., 1899, Baltimore Medical College
(Anatomy) Willimantic, Conn.
- Dean Ely Godwin, M.D., 1909, University of Michigan (Anatomy),
Trimountain, Mich.
- Agnes Goldman, A.B., 1909, Bryn Mawr College; A.M., 1913, Columbia
University (Anatomy)New York, N. Y.
- Isadore Goldstein, M.D., 1904, Cornell University (Ophthalmology),
New York, N. Y.
- Edward Hollander, B.S., 1912, College of the City of New York (Path-
ology and Clinical Pathology).....New York, N. Y.
- Aldon Szlupas Jankorski, M.D., 1908, Women's Medical College of
Pennsylvania (Anatomy)Brooklyn, N. Y.
- Herman M. Koller, B.S., 1908, M.D., 1910, St. Louis University,
(Ophthalmology)Minneapolis, Minn.

CORNELL UNIVERSITY MEDICAL COLLEGE.

- Stanislas Albert Lamoureux, M.D., 1910, Tufts Medical College,
(Anatomy)New Bedford, Mass.
- Bernard John Larkin, A.M., 1910, St. Mary's College; M.D., 1912, St.
Louis University (Ophthalmology).....Indianapolis, Ind.
- John William Lee, M.D., 1908, Hamline Medical College (Ophthal-
mology)Minneapolis, Minn.
- Myron Cory Lyons, M.D., 1906, University and Bellevue Medical Col-
lege (Anatomy)Buffalo, N. Y.
- James Perry McCann, M.D., 1902, American Medical College (Ana-
tomy)La Monte, Mo.
- James Malcolm MacKeller, M.D., 1905, Cornell University (Anatomy),
Tenaflly, N. J.
- William Wallace Maver, M.D., 1909, Long Island Medical College
(Radiology)Jersey City, N. J.
- Rosemary Florence Mullen, A.B., 1906, Normal College; M.S., 1909,
New York University (Anatomy).....New York, N. Y.
- Philip W. Nathan, M.D., 1893, New York University (Anatomy),
New York, N. Y.
- Otto Hugo Pagelson, M.D., 1878, College of Physicians and Surgeons
(Ophthalmology)Iowa Falls, Iowa
- William W. Perdue, Ph.C., 1905, Alabama Polytechnic Institue; M.D.,
1908, University of Alabama (Ophthalmology).....Furman, Ala.
- John Russell Perkins, M.D., 1904, Medical College of Virginia,
(Ophthalmology)Stuart, Va.
- Daniel Philip Platt, M.D., 1907, University and Bellevue Medical Col-
lege (Urology)Torrington, Conn.
- William Curtis Proud, M.D., 1900, Rush Medical College (Ophthal-
mology)New York, N. Y.
- Harold A. Rothschild, M.D., 1905, University of Minnesota (Ophthal-
mology)St. Paul, Minn.
- Florence DuBois Rees, A.B., 1912, Barnard College (Anatomy and
Chemistry)New York, N. Y.
- Gertrude Rochester, M.D., 1899, Cornell University (Hygiene),
New York, N. Y.
- Charles Judson Sawyer, M.D., 1895, College of Physicians and Sur-
geons Balto. (Ophthalmology).....Windsor, N. C.
- Adolph Schoen, M.D., 1899, University and Bellevue Medical College,
(Anatomy)New York, N. Y.
- Kaufman Schlivek, B.S., 1900, College of the City of New York; M.D.,
1904, College of Physicians and Surgeons (Ophthalmology),
New York, N. Y.
- Hugh William Schwartz, M.D., 1911, Dalhousie University (Anatomy),
Halifax, N. S.
- Clinton George Stewart, M.D., 1912, Rush Medical College (Ophthal-
mology)Newark, Ohio

CORNELL UNIVERSITY MEDICAL COLLEGE.

Beecher Franklin Stout, M.D., 1900, University of Kansas (Clinical Pathology)	San Antonio, Texas
Charles A. Wallenstein, M.D., 1907, College of Physicians and Surgeons (Anatomy)	New York, N. Y.
Henry Peter Wekesser, M.D., 1908, University of Nebraska (Ophthalmology)	Lincoln, Neb.
Jacob Lewis Wollheim, M.D., 1902, Columbia University (Anatomy),	New York, N. Y.
Henry Ralph Wormley, A.M., 1904, University of Michigan; M.D.,	
1906, Rush Medical College (Anatomy)	New York, N. Y.
Herman Eugene Yazel, M.D., 1907, Ernsworth Medical College (Anatomy)	Öklahoma, Okla.

SUMMARY.

Fourth Year	20
Third Year	32
Second Year	28
First Year	32
First Year at Ithaca	22
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	134

Candidates for degree of M.D.	134
“ “ “ “ Ph.D.	6
Graduate Students	45
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	185

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